INDEX OF AUTHORS

ABSTRACTS A and B, 1936

An asterisk denotes a previous abstract. Patents are marked (P.).

Anonymous, progress in enzyme chemistry, A., 241. Mineral and medicinal springs of Switzerland, A., 447, 1356. Determination of vitamin-A, A., 646. Weights and balances in ancient Egypt, A., 816. Determination of lead in blood, A., 876. Emissivity of tungsten as a function of wave-length from $0.23-2.0~\mu$ in the region of temperature $1600-3000^{\circ}$ abs., A., 916. Ideal and real crystals, A., 1449. Testing of silk hose, B., 13. Viscose film yarn, B., 14. Application of aniline-black in textile printing, of aniline-black in textile printing, B., 16. Stain-removal methods [for textiles], B., 17. Sizing of rayon yarns, B., 17. [Treatment of] bruised silk and rayon fabrics, B., 17. Density of gases in rotary coment kilns, B., 21. [Tool-]handle waxing, B., 29. Gum arabic, B., 39. Mercuric phenyl nitrate and chloride, B., 44. Practical problems in manufacture of resincid plastics. I.—VI., B., 68. Modern applications of the Salermo rotort for low-temperature carbonisation, B., 83. Moistureproofing of cellulose transparent paper, B., 94. Direct printing with rapid fast colours, Direct printing with rapid fast colours, B., 98. "Seersucker" effects in modern fabrics, B., 98. Film coverings as applied finishes, B., 108. Silk-processing developments during 1935, B., 188. Lepidolite as commercial product, B., 191. Corrosion of refractory material of enamel stoves, B., 192. Heat-resistant nickel-chromium-iron alloys, B., 196. Sucrose, beet pulp . . , and adsorption? B., 211. Chemical treatment of sewage, B., 221. Dyeing of carbonised [wool] piece goods and pieces fast to carbonising, B., 231. Sprayed metal coatings, B., 238. British coals: an-alyses and uses, B., 257. Tantalum [rayon] spinnerets, B., 267. New use for cellulose acetate rayon [in manufacturing double-texture fabrics], B., 268. Cloth-mercerising machine, B., 271. Sizing of rayon staple-fibre warp [yarns], B., 271. Solvent recovery in the rubber industry, B., 289. Toughness of solo crèpe [rubber], B., 289. Recovery of lime from saccharate cake, B., 294. Properties and characteristics of materials for food-plant machinery, B., 297. Bleaching, dyeing, and finishing of [fabrics containing] viscose-film yarns,

Anonymous—continued.

B., 314. Prevention of decomposition of [prussiate aniline-black] padding liquor, B., 315. Recent improvements in raw materials [for the paint and varnish industries], B., 335. Removal of metal particles from material for photographic and other papers, B., 365. Trubenising [of cotton fabric] and its relation to other processes, B., 367. Dyeing and carbonising, B., 367. Fluxes for soldering iron and non-ferrous metals, B., 373. Provisional specification of creep strength of steel, B., 374. Testing of lacquers by the Erichsen machine, B., 380. Pre-treatment of shot textiles before dyeing, B., 450. Electroplated gold for special purposes, B., 458. [Analysis of] sulphonated oils [used for textile treatment], phonated one lused for textule treatment, B., 461. Drying of washed coal, B., 481. Moisture and mildew on textiles, B., 490. Textile viscometry, B., 490. Fastness to light of coloured papers, B., 491. [Removal of] chafe marks in dyed silk fabrics, B., 492. Dyeing and finishing of cotton fleecy fabrics, B., 492. Sulphysic acid from hydrogen cylphide B. or cotton necey fabrics, B., 492. Sulphuric acid from hydrogen sulphide, B., 493. Volumes and weights of gases from [cement] rotary kilns, B., 498. European paint and varnish equipment, B., 509. Copper paint, B., 509. Russian artificial rubber, B., 511. Cause of serious carbonisation spots [on wool], B., 538. Fast-dveing of regenerated B., 538. Fast-dyeing of regenerated cellulose, B., 540. Sanforising defeats shrinkage [in fabrics], B., 540. Permanganate bleach for knitted and worked woollen goods, B., 540. Indirect determination of sodium and potassium in alkali-lime-silica glasses, B., 543. Corrosion protection, B., 549. Determination of copper and manganese in [rubber-proofing] materials, B., 561. [rubber-proofing] materials, B., 561. Eliminating sulphur dioxide hazard in air conditioning, B., 573. Coal hydrogenation in Great Britain, B., 580. Dyeing of rayon staple-fibre fabrics, B., 590. Preparation of chromic acid, B., 591. Glass and ceramic materials [in the food industry], B., 594. Paint for ships' bottoms, B., 607. Bleaching of wool-viscose staple-fibre knitted fabric, B., 638. Function of pigments in paints, B., 650. Soil prand yield of sugar beets, B., 660. NeoAnonymous—continued.
iopax, B., 667. Ephedrine, anhydrous,
B., 667. Ephedrine hemihydrate, B.,
667. Behaviour of zinc-white in new
German paint media, B., 702. Electrical method for ash determination in sugar beets, B., 710. Increasing dyeing fastness [on textiles], B., 736. New starch treatments for sizing and finishing, B., treatments for sizing and finishing, B., 736. Determination of aluminium [for textile purposes], B., 737. Stainless and acid-resisting steels [for textile-treatment plant], B., 743. Eliminating obnoxious fumes [in gum-running], B., 751. Yeast from sulphite waste liquor, B., 758. Rotary filters, B., 768. Low-temperature carbonisation, B., 772. Unshrinkable finish [for wool], B., 787. Technical data on open-hearth steel-making practice. B., 792. Direct production of electice, B., 792. Direct production of electice, B., 792. Direct production of electrolytic copper plates, B., 794. Acid blistering of soap bases in the drying process, B., 798. Paracoumarone-paraindeno resins, B., 801. Organic finishing media. IV., B., 801. Use of benzol in rubber compounds, B., 802. Proportioning of sulphur in rubber mixings, B. 802. Determination of parasity of E., 802. Determination of porosity of tin coatings, B., 840. Developments in real silk processing, B., 880. Lanital [cascin] wool, B., 880. Finishing silk and rayon mixture hose, B., 881. Dycing of spun viscose fabrics containing acctato rayon, B., 881. Colour discharge printing on silk, B., 881. Preparation of milled toilet soap with modern drying and milling equipment, B., 892. Grading of raw cotton, B., 924. Difficultly inflammable papers, B., 926. Universal developing agent for vat dyes, B., 928. Fabrics which trouble the dyehouse, B., 928. [Bleaching], dyeing, and finishing of rayon tennis socks, B., 928. Dyeing of acetate-rayon mixture fabrics, B., 928. Unshrinkable finish for woollen materials, B., 929. Mercerising of cotton and spun-viscose rayon, B., 929. Yarn-mercerising machine, B., 929. Steel rails improved by heat treatment by controlled cooling, B., 935. Influence of copper in ingot iron and steel, B., 935. Dic-casting alloy standards; proposed specifications for lead and tin-base alloy die-castings; A.S.T.M. designation: B 35 T, B., 936. Refrigerator tests on

Anonymous-continued. metal paints, B., 942. Hot vulcanisation of rubber proofings, B., 945. "Cochrane test" for testing abradability of coke, B., 964. Forming and testing [paper] pulp sheets, B., 980. Mercerisation of spun viscose [rayon yarn], B., 982. Textile auxiliaries and assistants, B., 982. Aluminium industry, B., 996. Uses for white lead, B., 1005. Bleachable inks from logwood, B., 1006. Use of wood oil [tung oil] in production of varnishes, B., 1006. Factors in economical grinding and pulverising, B., 1023. Modifying rayon crêpe fabrics, B., 1035. Wood fillers, B., 1042. Determination of chlorine in plants, B., 1060. Effect on the test-piece of adding bitumen to tar, B., 1075. Determination of aromatic compounds in commercial petrols, B., 1077. [Use of] covered rubber threads in knitted fabrics, B., 1084. Acetate rayon in lace manufacture, B., 1085. Mercerisation [of cotton], B., 1085. Mercerisation [of cotton], 1089. Finishing knitted fabrics, B., 1089. Modern [textile] finishing agents, B., 1089. Determination of after-yellowing of white enamels, B., 1108. Rubber synthesis in the United States, B., 1112. Jam manufacture, B., 1124. Wetting power of essential oils, B., 1128. Free-cutting steels, B., 1156. Annealing of aluminium and its alloys, B., 1160. Properties of east phenolic resin plastics for artistic utility products, B., 1166. Glass-clear plastics, B., 1166. Technical and economic aspects of a recent lowtemperature carbonisation process, B., 1186. Solvents and resin from light oil refining, B., 1187. Developments in bleaching, B., hydrogen peroxide 1203.

A.C. Spark Plug Co., electron emitters and alloy used therein, (P.), B., 605.

Aabye, J. S., non-impregnated vegetabletanned Danish, Norwegian, and Swedish sole leathers, B., 754.

Aamodt, O. S., and Johnston, W. H., drought-resistance in spring wheat, B., 611.

and Torrie, J. H., inheritance of and relation between kernel texture and protein content in spring-wheat crosses, B., 73.

Aarnio, B., plant-nutrient relations in the humus-bearing layer of forest soils, B.,

Aas, J. M., oxidation of unsaturated fatty oils by atmospheric oxygen. II., B., 558:

Aasted, K. C. S. See Bøggild, C. B. K.
Abadie, J. B. J. M., [electron-emissive]
electrodes, (P.), B., 333.
Abadie, P. See Girard, P.

See Abarenkova, E. A. Dolgov,

Abbasy, M. A., Harris, L. J., Ray, S. N., and Marrack, J. R., diagnosis of vitamin-C subnutrition by urine analysis, A., 391.

Abbét, P. O., jar mill, (P.), B., 960. Abbott, J. E. See MacMasters, M. J.Abbott Laboratories. See Carter, E. B., and Raiziss, G. W.

Abderhalden, E., simplified detection of defence enzymes in urine, A., 626. Effect of ascorbic acid on action of tyrosinase on l-tyrosine, l-3:4-dihydroxyphenylalanine, and l-adrenaline, A., 635. Specific defence proteases in study of inheritance. I. Tests with pure breeds [of guinea-pigs], A., 637. Dependence of composition of bloodplasma and -serum on nature of the diet, A., 1008. Differentiation of tumours (carcinomata and sarcomata) of varying origin and investigation of the relationship between primary tumours and their metastases by the protective proteinase reaction, A., **1539.**

Baertich, E., and Ziesecke, W., aminoacid content of cod muscle-protein, A., 879.

and Merkel, R., occurrence of prolinase, A., 596.

and Neumann, A., use of Zimmermann's reagent for detection of glycine and for determining its position in polypeptides, A., 494.

Abderhalden, R., polypeptidases of bloodsorum and -plasma, A., 1556.

Abe, K., organic sulphur compounds. III. Action of hydrogen cyanide, ammonia, and hydrogen sulphide on αβ-υυsaturated ketones, A., 212.

Abe, S., Watanabe, K., and Hara, R. solubilities of certain salts in liquefied ammonia. III. Solubility of ammonium chloride, and vapour pressure of the solution, A., 153.

Watanabe, K., Sigetomi, S., and Hara, R., decomposition pressures of the ammoniates of sodium and ammonium chlorides, A., 428.

See also Hara, R.

Abe, Y. See Inaba, T.

Abel, A., mechanism of sulphuric acid formation in the lead-chamber process, B., 190.

and Utescher, K., determination of "clay substance" in kaolins, clays, and soils, with special reference to tho Kallauner-Matejka method, B., 466.

Abel, E., and Bildermann, A., kinetics of oxidation of formic acid by iodic acid, A., 1209.

Hilferding, K., and Smetana, O., reactions between oxalic acid, iodine, and the iodate and iodide ions. III. Kinetics of oxalic acid-iodine reaction, A., 685.

Schmid, H., and Pollak, F., kinetics of oxidation of ferrous ion by nitrous acid, A., 1469.

Abelin, I., correlation between adrenals and thyroid, A., 230. Non-thyroid substances with thyroid action. IV. Thyroid-like substances from artificially iodinated protein, A., 903. Fat-sugar metabolism, A., 1018. Occurrence in the thyroid gland of a substance containing iodine and having antithyroxine activity, A., 1303.

Abell, R. G., effect of buffered phosphate solutions on a thin layer of living vascular tissue, in moist chambers introduced into the rabbit's car, A., 514.

Abels, J. C., determination of ethyl alcohol in saliva, A., 1405.

Abeshaus, H., Tokarev, N., and Nekrassov, N., inflammability of ammonia in presence and absence of a catalyst, A., 167. Abezgauz, I. See Goldberg, D. Abildgaard, J. See Schou, S. A.

Abkin, A., and Medvedev, S., kinetics of polymerisation of Δαγ-butadiene in presence of metallic sodium, A., 296.

Ablezova, K., and Roginski, S., promoter action of gases on hydrogenation catalysts, A., 168.

Ablov, A., influence of electric moment on number of molecules of base fixed by a salt. II., A., 1241. Additive product of basic copper trichloroacetate with benzylamine, A., 1500.

Abol, T., improvement in fat quality of bacon pigs receiving linseed cake by supplementary feeding of barley and skim milk, B., 218.

Abonlenc, J. See Senderens, J. B. Abragam, D., absence of bile salts from blood-serum in cancer, A., 626. See also Magat, J.

Abraham, A., and Philippon, M. L. A., products for scouring operations, (P.), B., 285.

Abraham, E. E. U., and Hilditch, T. P., acidic components of wool grease, B.,

Abrahamczik, E. See Raff, R. Abrahart, E. A., benzoylation of as-phenylethylearbamide, A., 1372.

Abramov, V.S. See Arbnsov, A. E. Abramova, M. A. See Tschelincey, V. N. Abramova, V. See Rapoport, I.

Abramovitsch-Dvoretzkaja, R. M., influence of electrolytes on the type of petroleum emulsions and the conditions of their destruction, B., 727.

Abramowsky, F., grinding process [for corn], (P.), B., 1067.

Abrams, A., and Brabender, G. I., factors affecting determination of watervapour permeability [of paper], B., 58Î.

and Wagner, C. L., use of inhibitors in

cleaning metallic pipe, B., 374.

Abrams, J. T., and Kipping, F. S., preparation of amino-alcohols. II., A., 1504.

Abrams, V. R., Hochwalt, C. A., and Sulflo Corp. of America, lubricant mixture, (P.), B., 681.

Abramson, H. See Hers, 4, F.

Abramson, H. See Hess, A. F.

Abramson, H. A., and Taylor, I. R., reduction of some adsorbed oxidationreduction indicators, A., 792.

See also Moyer, L. S. Abramson, J. H., and Greenlee Bros. & Co., impact testing machine and method,

(P.), B., 256.

Abresch, K., electro-analytical determination of alkalis, A., 43.

Abreu, S. F., and Oliveira, A. Q., pyrite: a raw material for chemical industries, B., 644.

Abt, A. F., anæmia of premature infants. II. Blood-iron and -hamoglobin, A.,

See also Farmer, C. J.

Abnav, J., new Rumanian fuel, B., 82. Abweser, C., corrosion and other destruction of tube material in excavation, B.,

Accnmulatoren-Fabrik Akt.-Ges., galvanic cell, particularly an electrical accumulator, (P.), B., 1051.

Ges.m.b.H., [hydr]oxyalkylated

nitrogen bases, (P.), B., 1197.

Achard, C., proteins of body-fluids. I. Quantitative and qualitative aspects. II. Application of physical data, A.,

and Piettre, M., proteins of cancerous cells, A., 100.

Achard. (Mme.) G., alteration, with time. of buffering power of suspensions of erythrocytes, A., 495. Analysis of the constituents of suspensions of erythrocytes by neutralisation curves, A., 495. Conductivity curves of ox red corpuscles in relation to the number of dispersed elements and $p_{\rm H}$, A., 1007.

Acharya, B. G. S., and Wheeler, T. S., synthesis of camphor from pinene. II., A., 992. Detergency of soap solutions,

B., 334.

Acharya, C. N., determination of carbon and nitrogen by action of chromic acid under reduced pressure, A., 352. Structure in relation to chromic oxidation of nitrogenous substances, A., 872.

Achmatov, A. S., unimolecular adsorption layers and surface films. I. Measurement of surface pressure of adsorption

layers, A., 1458.

Achmatowicz, O., Lewi, (Miss) P., and Robinson, Robert, strychnine and brucine. XXXV. Hofmann degradation of di-hydrobrucidine, A., 216. Achromeiko, A. I., elimination of mineral

matter from plant roots, B., 385.

Achumov, E. I., aggregative states. I. An empirical law. II. Ratio of temperature interval of existence of substances in solid and liquid states. III. Connexion between composition and properties in cutectics of binary systems of type I, A., 21, 417, 1060. Connexion between separate and reciprocal solubility of components in systems involving double decomposition, A., 1063. and Ezerova, E. A., solubility of sodium

carbonate in aqueous ammonia, A.,

1333.

and Golovkov, M. P., chemical composition and optical properties of solutions. I. Quaternary system KCl-NaCl-MgCl₂-H₂O at 15°. II. Optical properties of solutions in the quaternary system of the control of the co ary system NH₄Cl–NaCl–KCl–H₂O at 15°, A., 22, 1060.

and Gontscharov, N. A., electrolysis of sodium chloride in liquid ammonia.

II., A., 1071.

Gontscharov, N. A., and Ezerova, E. A., electrolysis of sodium nitrate in liquid ammonia, A., 687.

Ackermann, D., metabolism of guanyl-taurino; occurrence of glycocyamine in urine, A., 881.

and Fuchs, H. G., adsorption of nitrogenous substances from aqueous solutions, A., 914.

Ackermann, G., combustion triangle in

formation of soot, B., 354.

Ackermann, P. G., and Mayer, J. E., determination of molecular structure by electron diffraction, A., 927. Ackerson, C. W. See Mussehl, F. E

Ackert, J. E., and Graham, G. L., efficacy of carbon tetrachloride in roundworm control, B., 38.

Acree, S. F. See Burton, J. O., and

Wingfield, B.

Activated Alum Corporation. See Tippins.

Acton, A. P., Aickin, R. G., and Bayliss, N. S., continuous absorption spectrum of bromine, A., 1167. Acuto, G. See Oddo, B.

Adadurov, I. E., is sintering the cause of inactivation of barium-vanadium catalysts? B., 101.

Adadurov, I. E., and Atroschtschenko, V. I., stable platinum alloys as catalysts of oxidation of ammonia, B., 832. Highly active alloys for ammonia oxidation, B., 985.

Deitsch, J. M., and Proszorovski, N. A., platinised silver gauze, and silverplatinum alloys, in oxidation of

ammonia, A., 941.

and Didenko, P. D., catalysis by fusions, A., 167.

Dmitrieva, A. I., and Zinovitsch, V. M., intensification of the tower process of manufacture of sulphuric acid, and corrosion of lead, B., 985. and Gernet, D. V., enhancement of

thermostability of chromium catalysts,

B., 640. and Proszorovski, N. A., platinised nickel gauze for contact oxidation of

ammonia, B., 316. Zeitlin, A. N., and Orlova, L. M., influence of the carrier on poisoning of platinum catalysts by arsenic, A., 806. Platinum catalysts on metallic carriers, B., 101.

Adair, F. L. See Davis, M. E. Adair, G. S., and Adair, (Mme.) M. E., densities of protein crystals and hydration of proteins, A., 1005. See also Roche, J.

Adair, (Mme.) M. E., and Taylor, G. L., distribution of antibody to crystal-line ovalbumin in rabbit serum, A., 1531.

See also Adair, G. S., Greaves, R. I. N., Roche, J., and Taylor, G. L.
Adam, L. See Waterman, H. I.
Adam, N. K., surface tension of soap solutions, A., 561. Surface phenomena; films, A., 1458.

dam, W., Ajax-Hultgren salt-bath furnace, B., 1163. Adam.

Adamanis, F., thermal equilibria in ternary systems. IX. Phenacetin-sul-phonal-resorcinol. X. Carbamide-veronal-resorcinol, A., 161, 429.

Adamoli, C. See Panebianco, G. Adams, A. E., and Gray, B., thyroid glands of hypophysectomised newts after treatment with anterior pituitary, thyroid, and iodine, A., 1426

and Martindale, F., response of thyroid glands of hypophysectomised newts to injections of phyone and their reaction after cessation of treatment, A., 1426.

Adams, B. A., and Holmes, E. L., removal of components or constituents from liquids, gases, or vapours by adsorption or absorption, (P.), B., 913. Treatment of liquids and gases by absorption, in particular the treatment of liquids for removal or exchange of anions, (P.), B., 913.

Adams, C. E. See Standard Oil Co. Adams, E. B., azoic dyes in cotton dyeing, B., 492.

Adams, E. G. See Scott, Alfred W. Adams, E. W. See Standard Oil Co. Adams, F. W., drying of paper, B., 94.

Rato of drying writing papers, B.,

Broughton, G., and Conn, A. L., horizontal film-type cooler; film coefficients of heat transmissions, B.,

and Montgomery, A. E., evaluation of [paper-machine] dryer performance, B., 925. Adams, G. A., ultra-violet spectrum of hæmoglobin derivatives and bile pigment. A., 662. Ultra-violet absorption

spectrum of hæmoglobin, A., 1400.

Adams, J. E., Roller, E. M., and Boggs,
H. M., green manure fertiliser study

on Norfolk sand, B., 1223. See also Mehring, A. L.

Adams, L. H., simplified apparatus for high hydrostatic pressures, A., 698.

Adams, M., Boothby, W. M., and Snell, A. M., metabolic studies in osteoporosis, A., 1407.

Adams, M. A. See Taylor, F. H. L. Adams, N. I., jun. See Kovarik, A. F. Adams, Robert. See Seitz-Wer Seitz-Werke. G.m.b.H.

Adams, Roger. See Gruber, E. E., Hsing, C. Y., Leffler, M. T., McLean, Andrew, and Miller, R. F.

Adams, R. P., filter [for gases], (P.), B.,

529.

Adams, T. W., and Poulton, E. P., heat production in man. II. Output of carbon dioxide as a measure of heat production in basal metabolism, A., 506.

Adams, V. H. See Simon-Carves, Ltd. Adams, W. L. See Smith, J. B.

Adams & Westlake Co. See Warnke, C. J. Adamson, W. A. See Du Pont de Nemours & Co., E. I.

Adant, $M_{\cdot,\cdot}$ Spehl, $P_{\cdot,\cdot}$ and Minue, $R_{\cdot,\cdot}$ open gas-analysis method for metabolic determinations [on animals], A., 1572.

Adcock, C. M., soap, B., 204. Adcock, F., and Bristow, C. A., iron of high purity, A., 441.

Addington, H. H., air conditioning in the citrus industry, B., 426.

Addis, T., Poo, L. J., and Lew, W., protein lost by the various organs and tissues of the body during a fast, A., 1289. Protein-loss from liver during a twoday fast, A., 1290.

Poo, L. J., Lew, W., and Yuen, D. II., gravimetric determination of total body- and organ-protein, A., 624.
Addison, C. C. See Gibby, C. W.
Addison, R. S., heat-insulation for use in

buildings, (P.), B., 410.
Addlestone, J. A. See Crockford, H. D.
Addy, C. W. See Brit, Celanese.

Adel, A., reversal of a branch in a nonelectronic band, A., 404.

Slipher, V. M., and Fouts, O., Fraunhofer's spectrum in the neighbourhood of 96,000 A., A., 398.

Adelson, D. E., and Bogert, M. T., retene. V. Structure of 6-acetylretene, A., 726.

Hasselstrom, T., and Bogert, M. T., retene. VI. Retenediphenic [3methyl-4'-isopropyldiphenic] acid and its derivatives, A., 984.

and Pollard, C. B., derivatives of piperazine, A., 614.

Adelson, L. See Keys, A.

Adenstedt, H., thermal expansion of solids

at low temperatures (Cu, Ni, Fe, zinc blende, LiF, calcite, aragonite, NH₄Cl), A., 674.

Adickes, F., ester condensation and keten acetals; existence of carbon monoxide acetals, A., 722. Preparation of some esters. II., A., 1251.

and Meister, M., ester condensation and keten acetals, A., 188.

Adico Development Corporation. See Jones,

C. L.Adkins, H. See Farlow, M. W., and

Signaigo, F. K.

Adler, E., and Euler, H. von, cozymase and dihydrocozymase in living cells, A., 1556.

Hellström, II., and Euler, II. von, reduction of cozymase, A., 1419.

and Michaelis, M., components of dehydrogenase systems. X. Lactic acid dehydrogenase and malic acid dehydrogenase from heart muscle, A., 519.

See also Euler, H. von.

Adler, H., Woodstock, W. H., and Victor Chem. Works, acid-containing package, (P.), B., 368.

See also Vanderbilt, B. M.

Adler, K. See Bernhauer, K. Adler, P., and Hradecky, C., galvanonarcosis as means of investigating the action of hypnotics and narcotics on tho frog, A., 1146.

Adler, R., dechlorination of water, B., 1134. Adlersberg, D., and Lustig, B., apocholic

and dehydroapocholic acid, A., 1137.

Adolph, E. F., adrenaline and urino formation in the dog, A., 1425.

Adolph, W. H., and Chiang, II. C., proteins of the cowpoa (Vigna sinensis), A., 259. and Lin, I., effect of fat extractants on solubility of sesamé-seed protein in salt and alkali, B., 809. See also Hsü, P. C.

Adriaens, L., chemical investigation of seeds of Allanblackia klainei, Pierre, A.,

Adriano, F. T., Oliveros, S. B., Tabije, D., and Crisostomo, F., rotenone content of derris roots from different parts of the Philippine Islands, B., 248.

Aebersold, P. C. Sco Lawrence, J. H., and Zirkle, R. E.
Aepelbaum, V. A. Sce Kritschevski, I. R.

Aerovox Corporation. See Georgiev, A., and Rhodes, H. E.

Afanasiev, A., determination of sediment in linseed oil, B., 941.

Afanasiev, B. N., colour reaction for

detection of cyclopentadiene, A., 321. Afonski, I. F., and Kroschkin, A. A., non-decarburising salt bath for high-speed tool steels, B., 105.

Afremov, B. I. See Iljinski, M. A. Afremov, V. See Iljinski, M. A.

African Explosives & Industries, Ltd., forming of plastic materials into cylinders of predetermined length and diameter, (P.), B., 655.

Agafonov, A. V., and Zardalischvili, J. I., heat of reaction of destructive hydrogen-

ation, B., 225.

Agafonov, V., brown and red carbonated crust soils in Tunis, A., 959. Pedology of soils of France. II. and III. Azonal soils, B., 33, 70. Soil types of Tunis, B., 897.

Agaletzkaja, A. See Leites, S. M.

Agar, C. C., [conversion of] sulphates into sulphides [in sewage], B., 397.
Agarwal, R. R., and Dutt, S., bark of

Terminalia arjuna, Bedd. I. Isolation of arjunin, A., 395. Chemical examination of Punarnava (Bærhaavia diffusa, Linn.), A., 533. Chemical examination of the roots of Citrullus colocynthis, Schrader, A., 533. Fruit of Lagenaria vulgaris, Seringe (bitter variety). I. Constituents of the oil from the seeds, A., 651. Punarnava or Boerhaavia diffusa. Linn. II. Isolation of punarnavine, A., 652. Cuscuta reflexa, Roxb. III. Constituents of the seed-oil, A., 1166. Agarwala, R. N., and Manderville, D. C., electrical conductivity of potassium chloride in mixed solvents, A., 291.

Agasote Millboard, Co., composite flooring, (P.), B., 456.

Agde, G., and Hubertus, R., colloidal structure of bituminous coal as cause of plasticity, swelling, and caking of coking coals, B., 580.

and Schimmel, F., oxidation under pressure of ferrous sulphate in neutral and acid solution, A., 34.

Ageenkov, V. G., Anissimov, S. M., and Verchovtzev, M. P., determination of gold and silver in eyanide sludges, B., 199.

and Mamsurov, K. M., silica in the processes of leaching dross and filtering acid pulp at the Electrozine plant, B., 328.

position on zinc electrolysis, B., 201. and Sosunov, S. L., effect of anode com-

and Tzagikjan, E. A., removal of cobalt from solutions in electrolytic production of zinc, B., 328.

Ageev, M. D., dependence of quality of lime-diatomite mortars on physicochemical properties of components used, B., 409.

Ageev, N. V., nature of intermetallic phases of variable composition, B., 744. and Ageeva, V., solid solutions of indium and lead, A., 1193.

Ageeva, V. See Ageev, N. V.

Agfa Ansco Corporation. See Hagedon, M. Aggazzotti, A., effect of compressed air on animals, XVII. Combustion of ethyl alcohol injected into rats. XVIII. Combustion of ethyl alcohol injected in increasing doses, A., 756.

Aglialoro, M., and Ciulla, U., effects of the melanophore hormone and prolan on pigmentation and growth of tadpoles, A., 389. Standardisation of the melano-

phore hormone, A., 389.

Agnoli, R., and Maragliano, C., effect of hormones on dynamics of cardiac stimulants. I. Action of thyroxine, A., 645.

and Untersteiner, L., effect of restricted diet on deamination in the organism. I. Effect of high-carbohydrate diet, A., 233.

Agoos Leather Companies, Inc. See Sart, G. D.

Agren, G., calcium exerction by the pancreas, A., 228. Exerction of uric acid and urea by the pancreas and the liver under the action of secretin, A., 228. Cyclic changes in liver-glycogen of rats after removal of the adrenals, A.,

Agren, P., application of automatic control and regulating instruments in chemical industries, B., 175.

Agronomov, E. A., Dunin, M. S., Bundel, A. A., Goriatschieh, A. N., and Korenev, N. A., stored wheat infected with Fusarium, B., 951.

Agrosskin, A., and Dshjobadse, S., flue gas circulation in the Koppers compound circulating-flue coke oven, B., 625.

Agruss, M. S. See Grosse, A. von. Agte, K. See Gen. Electric Co.

Agthe, C. A., and Geigy A.-G., J. R., increasing viscosity of tars, (P.), B., 180,

Aguado, J. G. See Piffa de Rubies, S. Aguila, P. J. See Hermano, A. J.

Ahearn, A. J., effect of temperature on electron field currents from thoriated tungsten, A., 129. Effect of temperature, degree of thoriation, and breakdown on field currents from tungsten and thoriated tungsten, A., 1170.

Ahlberg, J. E., and Lundberg, W. O., thermocouples from 2° to 90° abs.,

Ahlborn Akt.-Ges., plate heat exchangers particularly for treating milk, (P.), B., 1071.

Ahlert, W. See Elektro Thermit Ges.m.b.H. Ahlfeld, F., Bolivian tin belt, A., 699. Tin deposits of Llallagua, Bolivia, A., 1088.

Himmel, H., and Kleber, W., Bolivian minerals. V. Franckeite, A., 1228.

See also Herzenberg, R.

Ahlmann, N., rendering powdered materials fluid, (P.), B., 175.

Ahlqvist, H., lixiviator and method of

leaching, (P.), B., 673.

Ahmad, B., determination of ascorbic acid by titration, A., 120. Excretion of vitamin-C in human urine, A., 229. Vitamin-A value of halibut-liver oil, A., 764. Vitamin-C value of some common Indian fruits, vegetables, and pulses [as determined] by the chemical method, B., 569.

Ahmann, C. F. See Neal, W. M.

Ahmed, Z. See Siddiqui, S. Ahrens, H. See Mohr, W.

Aiazzi-Mancini, M., and Dovatelli, L., pharmacology of chenopodium oil. II., A., 375.

Aichner, F. See Schering-Kahlbaum, A .- G.

Aickin, R. C., continuous absorption spectra: experimental methods, A., 1223.

See also Acton, A.P.

Aiken, J. K., Haley, J. B., and Terrey, H., preparation and properties of indium dichloride, A., 1475.

Aikkinen, I., comparative feeding trials with A.I.V. fodder and silage, B., 811. Ainsworth, G. C., detection of spotted wilt virus in chrysanthemums, B., 661.

Air Reduction Co., Inc. See Crowe, J.J., Gomonet, E., Metzger, F.J., and Schlitt,

Airoldi, R., determination of phosphorus in yeast by the bomb calorimeter, A., 112. Aisen, M., [sheet material carrying] bleaching and stripping agent, (P.), B., 590.

Aisner, M., Gorney, A.J., and Segal, M.S., influence of vagi and splanchnics on blood-sugar response to glucose administration, A., 1401.

Aitchison, L. See Clarke, H. W.

Aitken, G., and Watson, Laidlaw & Co., centrifugal machines, (P.), B., 81.

Aitken, R. S., and Wilson, C., pressor

substance in the blood in malignant hypertension, A., 1015. Aitkin, T. R. See Geddes, W. F.

Aivazov, B., and Neumann, M., period of induction of cold flames in pentaneoxygen mixtures, A., 1344. Cold flames in mixtures of pentane and oxygen, A.,

1468. Aiya, S. V. C., continuous spectrum

observed in Raman scattering, A., 1180. Ajax Electrothermic Corporation. Northrup, E. F., and Wever, F.

Ajello, T., and Gianferrara, S., action of hydrazine on oximinotriphenylpyrrole. II., A., 997.

Ajuto, (Signa.) A. See Vecchiotti, L. Ajzikovitsch, B. I. See Tsukervanik, I.

Akabane, H., variation of residual nitrogen in blood after injection of sodium

silicate solution, A., 356. Akabori, S., and Kaneko, T., synthesis of glyoxalino derivatives from a-amino-acids. III. Synthesis of two homologues of histamine, A., 864. Odorous substance containing sulphur

from "shoyu," A., 1166. and Numano, S., synthesis of glyoxaline derivatives from α-amino-acids. IV. Synthesis of histamine, A., 864.

Akagi, K. See Shikata, M. Akai, S., constituents of Epimedium macranthum, Morr and Decne, I. Chemical constitution of a new flavone glucoside of E. macranthum, A., 710.

and Nakazawa, K., constituents of Dicranopterus glauca, Nakai. I. Now catechutannic substance, "di-

cranin," A., 610.

Akerlöf, G., and Short, O. A., dielectric constant of dioxan-water mixtures between 0° and 80°, A., 1060.

Akerlund, E. G., and Elmqvist, O., casting [of metals], (P.), B., 202.

Akerman, A., and Granhall, I., nitrogen manuring and variety trials with wheat and oats in Svalöf, B., 115.

Akeroyd, E. I., and Norrish, R. G. W., photolysis of formaldehyde, acetaldehyde, and acetone at high temperatures, A., 1077.

Akhurst, C. G., use of weed-killers in control of natural covers [on rubber estates], B., 341.

Akim, L. E. [with Shebrovski, V. V.], preparation of lacquers from wood colloxylin, B., 943.

and Konopley, A. S., nitrocelluloso lacquers from wood pulp, B., 29.

Preparation of lacquer colloxylin from purified wood cellulose, B., 943.

Akimoff, N. P., and Monsanto Chem. Co., separation of phenolic isomerides [o- and p-benzylphenols], (P.), B., 1143.

Akimoto, K., effect of adrenalone, ephcdrine, and adrenaline on rabbit blood-

sugar, A., 1147. Akimov, G. V., and Friedmann, J., transformation in 18:8 [chromium-nickel] austenitic steel. III. Thermal expansion of cold-worked 18:8 steels. IV. The $\gamma \rightarrow \alpha$ transformation in 18:8 austenitic steel deformed by twisting at different temperatures, A., 1062.

and Oleschko, A. S., structural corrosion of aluminium alloys, B., 327.

and Pevsner, L., transformation in 18:8 [chromium-nickel] austenitic steel. I. Magnetic investigation of the $\gamma \rightleftharpoons$ a transformation, A., 1061.

and Tomashov, N., transformation in [chromium-nickel] austenitic II. Investigation of the trans-18:8 formation by thermoelectric method. V. Thermal analysis of deformed and hardened stainless steel, A., 1061, 1062.

Tschimuschin, F. F., and Vruzevitsch, S. A., cold-rolled non-corrosive steels of the austenite type, B., 743.

Akins, R. P., flotation machine, (P.), B., 1184.

Akintievsky, V. C., ["diazo]-photo-printing" process, (P.), B., 477.

Akiyama, G. See Toyama, Y. Akiyama, K., special Portland coments. III. Composition of mangan[ie oxide]-chrom[ic oxide] Portland cement. IV. Chemical resistance of mangan[ic oxide]chrom[ie oxide] Portland cement prepared from natural raw materials. Cold storage of plastic mortar of mangan[ic oxide]-chrom[ic oxide] Portland coment, B., 193, 372, 695. Akizuki, Y. Sec Kita, G.

Akobjanov, L. G., spongo lining for rubber rugs, B., 31. Thiokol and mixtures resistant to organic solvents, B., 420.

Akobshanov. See under Akobjanov. Akro Agate Co. See Hellmers, H. T.

Aktiebolaget Defibrator. See Asplund, A.J.A.

Aktieb. Graham-Stedts Gasgenerator, filter for gas producers, (P.), B., 820.

Aktieb. Kemiska Patenter, phosphoric acid-containing fertilisers, [(P.), B., 294.

Aktieb. Ramens Patenter, and Ramen, T., generation of steam, (P.), B., 721.

Aktieb. Separator, apparatus for atomising particles in suspension, (P.), B., 82. and Anderson, G. H., centrifugal treatment of rubber latex, (P.), B., 464.

Aktieb. Separator-Nobel, removal of semisolid separated matters from continuously-operating centrifugal bowls, (P.), B., 256. Improvement of mineral oils, (P.), B., 309.

and Bergedorfer Eisenwerk Akt.-Ges. Astra-Werke, apparatus for the refining of mineral oil, (P.), B., 1080.

Strezynski, G. J., and Kronasser, W. R., simultaneous dewaxing and refining

of mineral oils, (P.), B., 86.
Aktieb. Si-Ko. See A./S. Si-Ko.
Aktieb. Svenska Maskinverken, rotary or oscillating drying apparatus, (P.), B.,

Aktieb. Swedish Invention Corporation, explosives, (P.), B., 956.

Aktien-Gesellschaft Brown, Boveri & Co., electric smelting furnaces, (P.), B., 65.

Akt.-Ges. für Stickstoffdunger, organic acid anhydrides, (P.), B., 442.

Aktieselskabet Dansk Gærings-Industrie, reduction of foam formation, (P.), B.,

A./S. Dansk Svovlsyre- & Superphosphat Fabrik, and Larsen, K. J., mechanical roasting furnace, (P.), B., 575.
A./S. for Kemisk Industri, aqueous bitu-

minous emulsions, (P.), B., 1189.

A./S. Sydvaranger, arrangement for securing the bowl liners of cone crushers, (P.), B., 175.

Aktieselskapet Si-Ko, and Aktieb. Si-Ko, tooth paste, (P.), B., 430.

Akulov, N., quantum theory of temperature variation of the magnetisation curve, A., 925.

Alabuischev, A. F. See Antipin, P. F.

Alan, C. See Brown, F. D.

Albanese, C. See Bigiavi, D.
Albani, F. See Passerini, M.
Albareda, I. M., silica-sesquioxide ratio

of clays in characterisation of soils, B., 1114.

Alben, A. O., and Boggs, H. M., zinc content of soils in relation to pecan rosette, B., 806.

See also Boggs, H. M., and Smith, C. L.

Albers, H., nature and action of enzymes, A., 1296.

See also Euler, H. von.

Albers, V. M., and Knorr, H. V., spectroscopic studies of the simpler porphyrins. I. Absorption spectra of porphin, ms-methyl-, -ethyl-, -propyl-, and -phenylporphin, A., 1048.

Knorr, H. V., and Rothemund, P., fluorescence of the chlorophyll series;

reversible reduction of chlorophyll-a and -b, A., 1129.

See also Knorr, H. V.

Albers-Schönberg, E., Soyck, W., and Ungewiss, A., ceramic dielectrics, B.,

Albersheim, W. J., and Konheim, H. S., viscosity measuring device, (P.), B.,

Albert, A., and Linnell, W. H., chemotherapeutic studies in the acridine series. I. 2:6- and 2:8-Diaminoacridines, A., 343. Preparation of 2-chloro-4nitrobenzoic acid, A., 467.

Albert, O. G. See Frazer, J. C. W. Albert, D. W. See Finch, A. H.

Albert, H. See Stoermer, R.
Albert, M. See Lombard, V.
Albert, W. D. See Upson, F. W.

Albert Ges.m.b.H., K., Bruson, H. A., and

Raterink, H. R., oil-soluble artificial resins, (P.), B., 288.

Albert Products, Ltd., polycoloured artificial materials from fibrous materials and hardenable synthetic resins, (P.), B., 1087.

Alberti, C., pyrolysis of p-phenetylearbamide and of acetyl-p-phenetylcarbamide, A., 200. Acetylation of dulcin (pphenotylcarbamide), A., 200.

Alberti, E., determination of citric-soluble phosphoric acid in mineral phosphates, B., 452.

Alberto, A., reactions between solids, A., 173.

Albertshauser, F., and Philadelphia Quartz Co., soluble, pourable, and stable alkali silicate compounds, (P.) B., 1151.

Albrecht, A. See Treibs, A.

Albrecht, C., salt baths [for steels], B.,

196. Salt baths and arrangements for graduated hardening, B., 196.

Albrecht, E., velocity of cooling and heating multilayer safety glass, B., 369.

Albrecht, H. O. See Du Pont de Nemours & Co., E. I.

Albright & Wilson, Ltd., laundry starch and treatment of textile materials therewith, (P.) B., 950.

Albrook, R. L. See Barton, E.

Alco Products, Inc., Padgett, F. W., and Stearns, W. V., dowaxing of hydro-

carbon oil, (P.) B., 969.
See also Barton, P. D., Erter, J. H.,
Mahoney, J. C., Petty, E., and Wallis, J. S.

Alcock, N. S. See Findlay, G. M.

Aldaya, F. See García-Blanco, J. Aldea, G. See Maxim, N.

Alder, K., and Holzrichter, H., introduction of substituents into the cyclopenta-diene nucleus. I. 1- and 2-Benzyl-

cyclopentadiene, A., 1249.
and Rickert, H. F., diene synthesis.
I. Direct differentiation of cyclic penta- and hexa-dienes, A., 1251.

and Schneider, S., oxidation of double linkings. I. Oxidation of endo-cis-3:6 - endomethylene - Δ4 - tetrahydrophthalic acid, A., 1250.

Alder, K., and Stein, G., steric course of addition and substitution reactions. VI. exo-Additions of catalytically activated hydrogen to the dicyclo-[1:2:2]-heptene ethylenic linking; configurations of the norborneols and norbornylamines.
VII. Catalytic reduction of ketones and ketoximes of the camphor, ic, and isofenchone scries.

endo-exo-Isomerism. II., A., fenchone, and VIII. 1384.

Alderfer, S. W., clastic threads, (P.) B.,

Aldinger, R., replacement of boric acid in

enamel, B., 59.

Aldis, R. W. See Ranganathan, S.

Aldoschin, T. D. See Liehoscherstov, M. V. Aldred, J. W. H. See Jones, R. M.

Aldridge, B. G., Hopper, B., and Union Oil Co. of California, dewaxing of [petroleum] oils, (P.) B., 86.

and Union Oil Co. of California, asphalt, (P.), B., 85. Dewaxing of [petroleum] oils, (P.), B., 86.

See also Gard, E. W.

Aldur Corporation. See Smidth, L.

Alechina, A. P. See Shavoronkov, P. V. Alegretti, L., anomalous dispersion of silver vapour, A., 128.

Aleixandre, V., adsorption of gases by glass walls. XIV. Kinetics of adsorption of carbon dioxide by Jena glass, A., 791.

See also Crespi, M.

Alejnikov, I. See Kallauner, O. Aleschin, J. See Gaponenkov, T. K. Alessandrini, M. E., activity of amylase

solutions in presence of organic salts, A., 1024.

Alexander, C. H. See Nightingale, D. Alexander, H. B., moisture tube, A., 1085. Alexander, J., colloid-chemical aspects of starch, A., 594.

See also Mutsaars, W.

Alexander, L. L., and Fuson, R. C., reversibility of the Friedel-Crafts reaction; hydrogenation, A., 1370.

Jacoby, A. L., and Fuson, R. C., reversibility of the Friedel-Crafts condensation; hydrogenation phenomena, A., 205.

See also Fuson, R. C.

Alexander, L. \hat{T} ., and Haring, M. M., vapour pressure-water content relations for certain typical soil colloids, A., 427.

See also Byers, H. G.

Alexander, N. S. See Champion, F. C. Alexander, T. F. N. See Rands, F. C. Alexander, W., vulcanised rubber solution,

(P.) B., 1113.

Alexander, W. A., and Munro, L. A., isotopes in snow and rain water, A., 584. Alexander, W. B., Southgate, B. A., and Bassindale, R., survey of the River Tees. II. The estuary—ehemical and bio-

logical, B., 78. Alexander, W. P. See Burgess, L.

Alexander Chemical Co. See Baumann, F. Alexander & Posnansky, sulphurising organic compounds having unsaturated linkings of an aliphatic character [producing rubber substitute], (P.) B., 1221.

Alexandrov, L. A. See Tarasov, B. K. Alexandrov, P. I. See Slavinski, M. P. Alexandrov, V. G., and Alexandrova, O. G., distribution of pigments in the testa of some varieties of soya beans, A.,

Sec also Nasonov, D.

Alexandrova, N.A. See Gintzburg, J.S. Alexandrova, O.G. See Alexandrov, V.G.Alexandrovskaja, N. S. See Lissitzin,

Alexanian, C. L., natural and activated decolorising earths, B., 719. Identification of natural decolorising earths by their mode of dehydration, B., 1071.

Alexeev, R. I., acidimetric determination

of iodine, A., 811.

Alexeev, S. V. See Lichoscherstov, M. V.

Alexeeva, M. V., determination of small concentrations. II. Butyl and amyl alcohols, A., 452.

Alexeevski, P. I. See Pickat, A. K. Alexeevski, E. V., and Belotzerkovski, G. M., sorption of vapours by gels of hydrates of the oxides of aluminium, iron, and titanium. I. and II., A., 1064.

and Chramov, G. M., apparatus for producing vapours of constant concentration by evaporation of mixtures of liquids of different b.p., A., 306.

and Krasavin, S. F., recovery of the vapour-gas mixture evolved in the production of benzyl chloride, B., 54.

and Moskvin, G. M., recovery of vapours of volatile solvents by adsorbents. III. Production of ethyl peroxide iu the recovery of ethyl alcohol-ether vapour, A., 1196. Sorptive properties of the mixed sorbent Carboalumogel, B., 986.

and Tarasova, K. G., colorimetric determination of cresols, B., 181.

Alexianu-Buttu, G. See Marinesco, G. Alexis, E., influence of vintage date on quality of "aramon de plaine" wines, B., 295.

Alexiu, M. See Zaharescu-Karaman, N. Alexopoulos, K. D., transmutation of deuterium by deuterons, A., 6. Emission of y-quanta on disintegration of lithium by fast protons, A., 264.

Alfa-Laval Co., Ltd. See Worssam & Son. Alfol-Dyckerhoff Ges.m.b.H. See N. V. In-

ternat. Alfol-Maats.

Alfven, H., ionisation curves of single a-particles, A., 131. Magnification of currents of the order of 10-13 amp., A.,

Algard, G., insecticide, (P.), B., 302.

Algera, L., influence of temperature on the carbohydrate metabolism, respiration, and morphological development of the tulip. I., A., 1568.

Algerino, A. See Oddo, G.

Ali, S. N., and Samuel, R., theory of the co-ordinate linking; absorption spectra of tetra-alkylammonium salts. IX., A., 921.

Aliavdin, N., and Peregood, E., lead content of duodenal juice in cases of saturnism, A., 635.

Alicante, M. M., granular ammonium sulphate [fertiliser], B., 209. Survey of soils in the districts of Philippine Milling Co., Mendoro, Cebu Sugar Co., Cebu, Hind Sugar Co., Manaoag, Pangasinan, Central Colatagan, Batangas, B., 209. Amount of moisture absorbed by centrifugal sugar in storage, B., 248. Nitrification in acid soils, B., 339.

Alichanian, A. I., Alichanov, A. I., and Arzimovitsch, L. A., law of impulse maintenance with annihilation of positrons, A., 771.

See also Alichanov, A. I.

Alichanov, A. I., and Alichanian, A. I., artificial production of radioactive elements, A., 1173.

Alichanian, A. I., and Dželepov, B. S., continuous spectra of Ra-E and Ra-P30, A., 401.

Sce also Alichanian, A. I.

Alimarin, I. P., special reaction for zirconium, A., 1354.

and Ivanov-Emin, B. N., colorimetric determination of germanium, A., 1222. Chemical concentration of gallium, indium, thallium, germanium, and rhenium, in their determination in oxide and sulphide ores, B., 931.

and Zverev, V. S., colorimetric determination of small quantities of silica in solutions, minerals, and technical

products, A., 443. Alimchandani, R. L. See Shah, N. M. Alimov, A. See De Kolosovski, N. A.

Aliverti, G., and Rosa, G., use of direct and alternating current in effusion method of measuring radioactivity of air, A., 951. Anchoring of radium emanation on nuclei, A., 1043.

Alkaline Earths Co. See Borradaile, T. A. Allan, E. See Hamilton, J. B.

Allan, J. Sco Brit. Celanese.

Allan, J. C. See Stokes, R. O.
Allan, J. M. See Angell, H. R., and Hill, A. V.

Allan, Z. See Votoček, E. Allard, F., pneumatic separation of materials comprising elements of different specific weight, (P.), B., 80.

Allard, J. See Quelet, R. Alleroft, R., and Green, H. M., rapid titrimetric determination of arsenic in biological material, A., 260.

Allday, A. C., [die-moulds for] casting of aluminium and other non-ferrous metals, (P.), B., 1050.

Allegheny Steel Co. See Browne, V. B., Caugherty, W. E., Kiefer, G. C., Otte, O. M., and Scharschu, C. A.

Allegretti, L., anomalous dispersion of the first doublets of Sr+ and of Ba+, A.,

Allegri, A., diet of sunflower seeds for study of experimental polyneuritis, A., 753. Control and revision of the international standard for vitamin-B, A., 764. Pharmacological action [of drugs] in hypervitaminosis-B., A., 1148. Hypervitaminosis-B. VIII. Variations in glycæmia, A., 1303.

Allegri, F., general reaction of halogenotannins, B., 906.

Allen, A. J., quartz mercury arc, A., 769. Allen, A. O., thermal decomposition of acctone, A., 939.

See also Rice, O. K.

Allen, C. F. H., and Gilman, Lucius, synthesis of rubrene, A., 992.

and Young, D. M., semi-micro-combustion method for determining nitrogen in organic compounds, A., 1280.

See also Overbaugh, S. C., and Wells, F. B.

Allen, C. H. See Mantell, C. L.

Allen, E., physiology of estrogenic principles, A., 762.

Diddle, A. \hat{W} ., Burford, T. H., and Elder, J. H., analyses of urine of the chimpanzee for estrogenic content during various stages of the menstrual cycle, A., 1563.

See also Weisman, A. I. Allen, E. K. See Allen, O. N. Allen, E. R., Headley, W. N., Siegel, A., and Krebs Pigment & Color Corp., organic colouring materials comprising azo-compounds and a sulphonated derivative of pyrogenic decomposition products of rosin, (P.), B., 1007.

Allen, F. J., distilling and condensing apparatus, (P.), B., 722.
Allen, F. L., and Sugden, S., use of para-

magnetism as test for free radicals, A., 715.

Allen, F. W., influence of sugar, nitrogen fertilisers, and of ringing Gravenstein apple trees on colour and maturity of fruit, B., 1115.

Allen, Frank W., Lucia, S. P., and Eiler, J. J., nucleotide-nitrogen content of

human leucocytes, A., 1529.
Allen, H. I., Ayerst, D. B., and Electron Chem. Co., electrolytic cell [for brine electrolysis]. (P.), B., 107.

Allen, H. L., apparatus for heat-treatment of wax and wax mixtures, (P.), B., 54.

Allen, H. O. See Hurd, L. C.

Allen, H. S., fundamental frequencies and energy constants, A., 1442.

Allen, H. V., heat-insulating bricks or blocks for use in furnaces, kilns, etc., (P.), B., 791. Hot-face insulation [of furnaces and kilns], B., 1183.

Allen, J., tenacity of cellulose acetate in various forms, B., 538.

Allen, (Miss) M., tension coefficient of [electrical] resistance of single hexagonal crystals, zinc and cadmium, A., 18. Tension coefficients of resistance of the hexagonal crystals zinc and cadmium, A.,

Allen, O. N., and Allen, E. K., root nodule bacteria of some tropical leguminous plants. I. Cross-inoculation with Vigna

sinensis, A., 1306.

Allen, R., and Bonrne, G., adrenal gland extract causing luteinisation of the ovaries and endometrial hyperplasia, A., 762.

See also Bourne, G.

Allen, R. C., controlling colour of greenhouse hydrangeas (Hydrangea macrophylla) by soil treatments with aluminium sulphate and other materials, B.,

Allen, T. C., new spray for potato leaf-hopper control, B., 386.

See also Zermuehlen, A. E.

Allen, V. O., and Radio Corp. of America, space-discharge device, (P.), B., 66. Electron-discharge device [thermionic valve], (P.), B., 845.

Allen, V. T., mineralised spherulitie limestone in the Cheltenham [St. Louis] fireclay, A., 1086. Dickite from St. Louis County, Missouri, A., 1228.

Allen, W. H. See Burke, W. E.

Allen, W. M., and Heckel, G. P., persistence of corpora lutea in the pseudo-pregnant

rabbit, A., 1427.

and Meyer, R. K., physiology of the corpus lutcum. IX. Inhibition of estrin by progestin-containing extracts of the corpus luteum, A., 388.

See also Makepeace, A. W., Reynolds, S. R. M., and Strain, W. H.

Allen & Co., Ltd., E. See Fodor, G. Allers, R., and Brill, J., behaviour of bloodsugar in pigeons under the action of poisons of the central nervous system, A., 1021.

Alles, G. A., B-form[alkyl]amino-a-p-anisylpropanes, (P.), B., 874. a-p-Anisyl-B-methylaminopropane [p-anisylisopropylmethylamine, etc.] and its acid addition salts, (P.), B., 1234. a-p-Hydroxyphenyl - β -dimethylaminopropane and its acid addition salts, (P.), B., 1234. $a \cdot p$ -Hydroxyphenyl- β -methylaminopropane and its acid

addition salts, (P.), B., 1234.
and Knoefel, P. K., local anæsthetics
with vasopressor action. I. Esters of arylethanolamines, A., 375.

Alley, A., effects on gastric secretion in dogs of various food substances employed in the treatment of gastric ulcer, A., 1405. Effect on gastric juice secretion of various cooked preparations of haddock and of lobster, A., 1405.

Allgemeine Electricitäts Ges., impregnating fillers and fibrous materials with resins of the [aromatic] amino-aldehyde series, (P.), B., 288. Electron-discharge tubes, (P.), B., 418.

See also Wiegand, E.

Allied Mills, Inc. See Fuhrmann, L.J.Allinne, (Mlle.) M., determination reducing sugars in chocolates, B., 121.

Alliott, E. A., filter-presses, B., 768. Allis-Chalmers Manufacturing Co.
Dimberg, P. C., Goldberg, A., and Newhouse, R. C.

Allison, D. K., three-colour film and pro-

cess, (P.), B., 1021.
Allison, E. See Feldman, J. A.
Allison, F. E., and Hoover, S. R., response of Rhizobia to natural humic acid, B., 806.

See also Ludwig, C. A. Allison, $M. J. \tilde{C}$., Henstell, H. H., and Himwich, H. E., influence of glycine on

creatinuria in poripheral neuritis, A., 366. Allison, S. K., efficiencies of production and the half-lives of radio-carbon and radio-

nitrogen, A., 542. and Jesse, W.P., variation of the atomic structure factor of potassium with

X-ray wave-length, A., 655.

Allmänna Ingeniörsbyran, H. G. Torulf, sintering or roasting of ores, etc., (P.), B., 601.

Allmänna Svenska Elektriska Aktiebolaget, metal-vapour ionic valves, (P.), B., 556.

and Dreyfus, L., operation of electric eddy-current furnaces, (P.), B., 1051. See also Högel, L.

Allmand, A. J. See Craggs, H. C., and

Hunter, E.
Allner, W., accessories for gas analysis, A., 446. Manufacture of town gas and gas for chemical syntheses from lignite, B., 724. Allott, E. N., chemical changes in the blood in Addison's disease and their alteration

in response to treatment, A., 1140. Alloy Research Corporation, rustless or stainless iron, (P.), B., 376. Prepar-

ation of [stainless steel] alloys, (P.), B., 415. Iron-chromium alloys, (P.), B., 415. Iro B., 843, 1045.

See also Arness, W. B., and Feild, A. L. Allport, N. L., deterioration of atropine eye ointments on storage, B., 75.

Allsopp, C. B., and Willis, H. F., refractive dispersion of organic compounds. VII. Refractive indices of hexane and refractivities of hydrogen and carbon. VIII. Isomerides of the formula C4HaO2: dioxan, ethyl acetate, isobutyric acid, and acetoin, A., 409.

Allweiss, M.D. See Soskin, S. Alm, F. See Nilsson, R.

Almasy, F., and Kortüm, G., hydrogen lamp with illumination space of quasipoint form, B., 1000.

See also Bernegg, A. S. von, Miescher, G., and Zwicky, H.

Almazov, A. See Volkov, K. Almela, J. See Collazo, J. A. Almen, J. O., and Gen. Motors Corp., testing lubricants, (P.), B., 262.

Almon, L. See Stovall, W. D.

Almquist, H. J., purification of the antihæmorrhagic vitamin, A., 907, 1431. and Stokstad, E. L. R., nutritional deficiency causing gizzard erosions in

chicks, A., 766. Stokstad, E. L. R., and Halbrock, E. R.. supplementary values of animal protein concentrates in chick rations, A.,

102.

Almquist, J. A. See Du Pont de Nemours & Co., E. I.

Almy, G. M., and Irwin, G. R., mass ratio of lithium isotopes from spectrum of Li₂, A., 264.

and Kinzer, G. D., emission spectrum of diatomic arsenic, A., 1039.

Aloisi, M., action of 2:4-dinitrophenolon the isolated heart of the guinea-pig, A., 757. Alox Chemical Corporation. See Burwell,

A. W. Alpern, M. See Pauli, W.

Alphen, A. J. S. van. See Verkade, P. E. Alphen, J. van, alkylated ethylenediamine derivatives. IV. Reaction between aβbis(benzylideneamino)-ethane, phenyl-carbimide, and water, A., 64. Ethylene oxamide (2:3-diketopiperazine), A., 865. Aliphatic polyamines. I.—III., A., 999, 1274, 1493.

Alquier, R. See Cornillot, A. Alsa Société Anonyme, Picard, R., and Fays, R., tubular artificial textile threads, (P.), B., 1202.

Alsted, L. L. See Wells, S. D.

Alt, M. See Steinmetz, H.

Altar, W., intramolecular forces between bound atoms, A., 1324.

Altdorf, J. See Schröder, W.

Alten, F., and Goeze, G., influence of potash manuring on the anatomical structure of stems of oats and barley, B., 467.

and Hille, E., nephelometric microdetermination of chlorine and its application to determination of chlorine in [ash of] organic substances, A., 693.

Wandrowsky, $B_{\cdot \cdot}$, and Knippenberg, $E_{\cdot \cdot}$, nephelometric determination of copper with salicylaldoxime in lead-free substances, A., 813.

Altenburg, J., recovery of glycerin from used printing blocks, B., 243. Refining and distillation of glycerin, B., 284. Altenburger, E. See Stepp, W.

Altenkirch, E., and Behringer, H., separation of water contained in a liquid,

(P.), B., 1185. Alter, C. M., and Kipp, E. M., effect of alteration on the lead: uranium ratio and the calculated age of Wilberforce,

Ontario, uraninite, A., 185. Variation of the lead-uranium-thorium ratio in a single crystal of uraninite, A., 1087.

Althausen, T. L., Blomquist, B. E., and Whedon, E. F., influence on carbohydrate metabolism of experimentally induced hepatic changes. IV. Blocking of the reticulo-endothelial system with special reference to the Kupffer cell, A., 757.

Alther, J.G. See Universal Oil Products Co. Altick, C. D. See Smiley, L. D.

Altieri, V. J., measurement of expansion of coal during carbonisation, B., 433. Alting, H. See Dorgelo, H. B.

Altmann, E. See Macura, H.
Altmann, E. S. See Lutschinski, G. P.
Alton, W. H., and Vanderbilt Co., Inc.,

R. T., coloured granules, (P.), B., 410. Dry-cleaning composition and process, (P.), B., 1090.

Altson, R. A., Azotobacter in Malayan soils, B., 513.

Altwegg, H., Eichler, A., and Du Pont Rayon Co., artificial thread [of reduced lustre], (P.), B., 1202.

Aluminium, Ltd., Kempf, L. W., and Dean, W. A., aluminium-base alloys, (P.),

B., 843.

Nock, J. A., jun., and Freche, H. R., aluminium-base alloys, (P.), B., 1213. Paine, R. E., and Harrison, J. S., aluminium-base alloys susceptible to heat-treatment, (P.), B., 554.

and Stroup, P. T., treatment of easilyoxidisable [aluminium] alloys, (P.), B.,

Aluminium Plant & Vessel Co., Ltd. See Ralph, S. J., and Tarbet, W. G.

Aluminiumwerk Tscheulin G.m.b.H., and Craemer, K., [metallic] packing-material for perishable goods, (P.), B., 202. Uniting paper with metal foil, (P.), B., 928.

Aluminum Co. of America, and Benson, L. J., sterilising solution [for aluminium], (P.), B., 1049.

and Boothman, D. M., aluminium bronze powder, (P.), B., 1102. Bronze-powder pigments, (P.), B., 1102. and Brown, R. H., duplex metal articles

[coated aluminium alloy], (P.), B., 797. Duplex metal article, (P.), B., 1048. and Callis, C. C., soldering flux [for

aluminium and its alloys], (P.), B., 603. Callis, C. C., and Derr, R. B., soldering flux [for aluminium and its alloys], (P.), B., 603.

and Derr, R. B., alumina adsorbents, (P.), B., 1038. Alumina, (P.), B., 1092.

and Edwards, J. D., composite metallic articles [oxide-coated aluminium mirrors], (P.), B., 506.

Edwards, J. D., Taylor, C. S., and Wentz, W. W., aluminium reflector surface, (P.), B., 603.

and Fink, W. L., free cutting [aluminium] alloys, (P.), B., 417.
and Heiser, H. W., [Keene's-type]

cement, (P.), B., 696.

and Hopkins, H. L., free cutting [alumin-

ium] alloys, (P.), B., 417. and Keler, F., jun., heat-treatment of easily oxidisable metals, (P.), B., 603.

Kempf, L. W., and Dean, W. A., free cutting [aluminium] alloys, (P.), B., 417.

and Kratz, E. J., solder [for aluminium], (P.), B., 417.

and Malby, S. G., non-seizable article of aluminium, (P.), B., 282.

Mason, R. B., and Tosterud, M., bright aluminium surfaces, (P.), B., 332. and Monsch, H. D., working of alumin-

ium, (P.), B., 505.

Morrow, J. E., and Barnitt, J. B., mineral wool, (P.), B., 988.

Mowe, W. L., and Wagner, G. H., alkali pyroarsenates, (P.), B., 318.

Aluminum Co. of America, and Nock, J.A., jun., [aluminium] alloys, (P.), B., 155. Aluminium alloy castings, (P.), B., 1049.

and Pacz, A., treatment of [silicon-

aluminium] alloys, (P.), B., 155. and Stroup, P. T., treatment of aluminium-base alloys, (P.), B., 603. Treatment of easily oxidisable alloys [during molting], (P.), B., 938. Treatment of aluminium and its alloys, (P.), B.,

Torrence, T. A., and Endean, F. L., [self-]lubricating metal foil, (P.), B.,

and Tosterud, M., colouring of aluminium, (P.), B., 106. Treatment of [oxide] coatings [on aluminium], (P.), B., 938.

and Whitzel, R. J., aluminium and its

alloys, (P.), B., 376.
Willmore, C. B., and Callis, C. C., alumina, (P.), B., 1092.

and Work, H. K., coating for [lightalloy] pistons, (P.), B., 240.

Aluminum Colors, Inc. See Bengston, H., and Tosterud, M.

Alvarado, A. M. See Du Pont de Nemours & Co., E. I.

Alvarez, L. W., energies of X-ray photo-electrons, A., 1311. Alvarez, V. G. See Vázquez, A.

Alvarez, W. C., and Vanzant, F. R., relations between hæmoglobin and gastric acidity, A., 1536.

Alwall, N., and Geiger, E., occurrence of acidosis after experimental ammonia

poisoning, A., 1549. Alzate, S. I., analysis of calcium fluoride, B., 833.

Amadio, G., alcoholic fermentation of various sugars, A., 1300.

and Paronetto, L., determination of volatile acidity of wine with the new Jozzi acidacetimeter, B., 808.

Amagasa, M., and Nishizawa, K., cause of molasses formation. V. Measurement of velocity of crystallisation of sucrose from its pure supersaturated aqueous solution with a refractometer. VI. Measurement of velocity of sucrose crystallisation from its aqueous solution containing salts by a refractometer, B., 1120.

Amagasa, S., agglutinins in human milk, A., 1139.

Amaldi, E., D'Agostino, O., Fermi, E. Pontecorvo, B., Rasetti, F., and Segrè, E., artificial radioactivity produced by bombardment with neutrons.

VII.—IX., A., 659. D'Agostino, O., Fermi, E., Pontecorvo, B., and Segre, E., artificial radioactivity produced by bombardment with neutrons. X., A., 1174.

D'Agostino, O., and Segrè, E., artificial radioactivity produced by bombardment with neutrons. VI., A., 132.

and Segrè, E., behaviour of slow neutrons at different temperatures, A., 1314. See also Fermi, E.

Amalfitano, G. See Castellani, A.

Aman, J., therapeutic and diagnostic means for treatment of tumours, (P.), B., 219.

Amano, T. See Satô, T. Amantea, G., assay of vitamin- B_1 by the "beri-beri" quotient (Q_b) , A., 390. Amarel Corporation. See Zieley, J. D.Amarendra. See Godbole, N. N. Amati, L. See Bocca, C.

Ambard, L., and Trautmann, S., rôle of tho concentration of the co-enzyme and of the substrate, in the rate of fermentation reactions, A., 518.

Ambarzumjan, R. S.See Gindin, L. G. Amberg, C. R., size determination with the

hæmacytometer, B., 815.

Ambler, $C.\ M.$, jun., and Sharples Speciality Co., purification of lubricating oils, (P.), B., 9.

See also Sharples Speciality Co. Ambler, H. R., heats of combustion and formation of dibutyl and diamyl phthalates, A., 1341.

See also Sutton, T. C.

Ambrose, A. M., and Haag, H. B., toxic-

ology of *Derris*, B., 1013. Ambrose, H. A., Loomis, A. G., and Gulf Res. & Development Corp., increasing production of [oil] wells, (P.), B., 136. Drilling well and fluid therefor, (P.), B., 136.

See also Lawton, H. C.

Ambrose, J. W., progressive kinetic meta-morphism in the Missi Series near Flinflon, Manitoba, A., 1356.

Ameo, Inc. See Paxton, E. W.

Amdur, I., viscosity and diffusion coefficients of atomic hydrogen and atomic deuterium, A., 931. Metal oil diffusion pump: multiple-nozzle type,

American Agricultural Chemical Co. See Hagood, J., Klosky, S., and Singleton,

J, T.

Amer. Anode, Inc. See Beal, $C.\ L.$, Hansen, $M.\ E.$, Szegvari, A., and Willson, $E.\ A.$

Amer. Asphalt Paint Co. See Ford, T.C.Amer. Bemberg Corporation. See Barmen, G. B., Bochmann, O., Hartmann, August, Hoelkeskamp, F., and Hofmann, H.

Amer. Bitumals Co. See Carroll, C. F., and Watts, V. E.

Amer. Brakeblok Corporation. See Blume, W.A.

Amer. Brass Co. See Freeman, J. R., jun., Hook, I. T., Jennison, H. C., Silliman, H. F., and Smith, C. S.

Amer. Can Co. See McConkie, J. E., and Robinson, J. E.

Amer. Centrifugal Corporation, continuous automatic centrifugal separating machines, (P.), B., 1135.

Amer. Chain Co., Inc. See Andren, L. Amer. Chemical Paint Co., finishing of metallic [iron and steel] surfaces, (P.), B., 1101.

See Gravell, J. H.

Amer. Cyanamid Co., [frothing agent for use in] froth flotation of ores, (P.). B., 603.

Christmann, L. J., and Jayne, D. W., froth flotation of ores, (P.), B., 1162.

See also Boor, L., Buchanan, G. H., Canon, F. A., Christmann, L. J., Clark, C. B., Cox, G. E., Foster, G. H., Francisco, K. N., Griffith, P. W., Hansen, W. C., Jaeger, A. O., Jewett, J. E., Kraus, W., Landecker, M., Migrdichian, V., Moffett, E. C., Moore, W., and Spalding, W. L.

Amer. Cyanamid & Chemical Corporation. See Clark, C. B., Daniels, L. C., Jaeger, A. O., and Witzel, H. W.

Amer. Engineering Co., furnace tuyères, (P.), B., 2.

Amer. Enka Corporation. See Koch, T., and Moritz, A. J. L.

Amer. Foundry Equipment Co., abrasive throwing wheels, (P.), B., 836.

and Minich, V. E., abrasive throwing wheels, (P.), B., 836.

Amer. Kerament Corporation. See Krauss, V. P.

Amer. Lecithin Co. See Bolen, P., Rewald, B., and Sørensen, S. O.

Amer. Lurgi Corporation. See Debuch, C. P., Freise, M. G., Heinemann, Karl, and Weidmann, H.

Amer. Magnesium Metals Corporation. See Hansgirg, F., Kemmer, F. R., and Schiohtel, G.

Amer. Metal Co., Ltd., casting of deoxidised copper, (P.), B., 504. See also Kern, E. F.

Amer. Moistening Co. See Loopsinger, A.J.

Amer. Murex Corporation. See Roberts, A. T.

Amer. Oil Chemists Society, report of the Fat Analysis Committee, B., 157. Determination of stability of edible fats and oils, B., 1053.

Amer. Oxythermic Corporation. Fränkl, M.

Amer. Porcelain Co. See Hoffmann, F. P. Amer. Potash & Chemical Corporation. See Black, L. G., and Burke, W. E.

Amer. Research Products, Inc. See Pacini, A.J.

Amer. Rolling Mill Co. See Heover, G. R. Amer. Sheet & Tin Plate Co. See Lorig, E. T., and Whetzel, I. C.

Amer. Smelting & Refining Co., reduction of oxidised ores of zine and other metals, (P.), B., 553. Flux for cadmium and its alloys, (P.), B., 938. Treatment of metals or alloys con-

taining tin, (P.), B., 1048.

and Monson, H. H., treatment of antimonial lead, (P.), B., 1050*.

See also Betterton, J. O., Fleming, E. P., Hanson, C. W., Hasche, R. L., Monson, H. H., Pitzer, E. C., Rathbun, R. B. Reid, Walter S., Sayre, R. E., and Teats, R.

Amer. Steel & Wire Co. of New Jersey. See Henry, W. M., and Williams, T. D. Amer. Tar Products Co., Inc. See Rhodes, E. O., and Roche, J. N.

Amer. Tool & Machine Co. See Tholl, J. F.Amer. Window Glass Co. Seo Bishop, F. L., and Monro, W. L.

Amer. Writing Paper Co., Inc. See McCorkindale, W. P.

Amer. Zinc, Lead & Smelting Co., zinc oxide, (P.), B., 274. Pigmented paper, (P.), B., 589. Treatment of titanium dioxide, (P.), B., 1151.

See also Calbeck, J. H., Eide, A. C., and MacIntire, W. H.

Amick, C., crease-resisting fabrics, B., 17. Amiel, A., application of the theory of chain reactions to the slow combustion of benzene, A., 939.

Amiel, J., preparation and properties of double chlorides and bromides of bivalent nickel and of organic bases, A., 194. Organic cupric tetrachlorides and tetrabromides, A. 212. Organic cupri-tetrachlorides and -tetrabromides formed by secondary and tertiary amines and alkaloids, A., 438. Slow combustion of benzene and other hydrocarbons, A., 684.

Aminoff, G., and Broomé, B., oxidation of single crystals of zinc sulphide studied by electron diffraction, A., 958.

Amiot, R., adsorption of binary mixtures of acetic acid and alcohols in aqueous solution [by animal charcoal], A., Vegetable [seed] oil, (P.), B., 933.1107.

Amine, H. C., heat-exchange surface, (P.), B., 304.

Ammer, G. See Müller-Neuglück, H. H. Ammerman, M., and Waterman, R. E., erystalline vitamin- B_1 . IV. Injection method of assay, A., 118. See also Waterman, R. E.

Ammon, C., conversion of carbon monoxide into formic acid and its aluminium, chromium, and iron salts, (P.), B.,

Ammon, G., and Ammon, R., diffusion in gelatin and rhythmic precipitation of magnesium hydroxide, A., 20.

Ammon, R., occurrence of acetylcholine in blood, A., 93. Does the blood contain acetylcholine? A., 356.

and Grave, G., alleged formation of vitamin-C from mannose by liverpulp, A., 1160.

and Hinsberg, K., colorimetric determination of phosphoric and arsenic acid with ascorbic acid, A., 694.

See also Ammon, G., and Hinsberg, K. Ammundsen, E., unsaponifiable fraction of rat's faces, A., 750.

Amoureux, G. See Berthelot, A., and Ramon, G.

Ampt, G. A., determination of zirconium, A., 180.

Amsler, C. See Matschulan, G.

Amy, L., glass filters for isolating lines of mercury are in photography of Raman spectra, A., 954.

See also Sannie, C.

Amy, Aceves, & King, Inc., dispersion of fog or other particles suspended in air with or without other gases mixed therewith, (P.), B., 579.

Anable, F. M., Klein, George, and Victor Chem. Works, disodium phosphate, (P.), B., 592.

Anaconda Copper Mining Co. See Laist, F., and Thomas, W. J.

Anand, B., and Puri, A. N., determining reaction and titration curves of soils, B., 562.

See also Puri, A. N.

Anantakrishnan, S. V., and Hughes, E. D., substitution in polycyclic systems. I. Nitration of fluorene and 9-bromofluorene, A., 62.

Anantanarayanan, K. P. See Ayyar, T. V. S.

Ananthakrishnan, R., Raman spectra of carbon and silicon tetrachlorides, A., 268. Raman spectra of some organic liquids under high dispersion and resolving power, A., 546. Polarisation of the Raman bands of water and deuterium oxide, A., 663. Raman spectrum of cyclopropaue, A., 1050. Raman spectra of some boron compounds, A., 1179. Raman spectra of cyclopropane and ethylene oxide, A., 1180. Raman spectra of propylene and isobutane, A., 1180. Raman spectra of trimethylamino and some compounds of hydroxylamine and hydrazine, A., 1445. Complementary filters for photographing the Raman spectra of crystal powders, A., 1480.

Anastasiu, B., absolute viscosity of automobile cylinder oil, B., 259.

Anazawa, Y., effect of various enzymes on toxin and anatoxin, A., 359.

Anchel, (Miss) M., and Schoenheimer, R., reagents for isolation of carbonyl compounds from unsaponifiable material. A., 989.

Anciens Établissements A. Savy, Jeanjean & Co. See Harber, L. S.

Andale, Co., and McNcal, D. R., rotary strainers, (P.), B., 176.

Andersen, A. G. H., and Jette, E. R., X-ray investigation of the iron-chromium-silicon phase diagram, A., 1061.

Andersen, B., gastric secretion of infants with special reference to pepsin and rennin, A., 881.

Andersen, D. H., effect of food and of exhaustion on the pituitary, thyroid, adrenals, and thymus glands of the rat, A., 525.

See also Victor. J.

Andersen, E. B., sensitive counter tube arrangement, A., 446. Induced radioactivity of mercury, A., 542. Radioactive isotope of sulphur, A., 773. Radioactive isotope of iron, A., 1045.

Andersen, O., plasma-phosphatase in normal and rachitic children, A., 380.

Anderson, A. See Greaves, J. E.

Anderson, A. A., and Totten, W. P., ore-reduction furnace and condensing chamber, (P.), B., 601.

Anderson, A. B., and Tompsett, S. L.,

error due to blood-arginase in the urease method of determining blood-urea, A., 1298.

Anderson, A. W., and Faulkner, O. T., animal nutrition and animal husbandry in Northern Nigeria, A., 628.

Anderson, B. W., refractometer and other refractive index methods, A., 581. and Payne, C.J., liquids of high refractive

index, A., 1051.

Anderson, C. G., and Raistrick, H., chemistry of micro-organisms. XLVII. Production of polysaccharides by Penicillium luteum, Zukal, A., 247.

Anderson, C. H. See Kobe, K. A. Anderson, C. N., and Lever Bros. Co., aryl mercuric heterocyclic carboxylates, (P.), B., 1235.

Anderson, C. O. See Burris, S. J., jun., and Davis, S. H.

Anderson, C. T., heat capacity of lead sulphate at low temperatures, A., 673. Heat capacities of quartz, cristobalite, and tridymite at low temperatures, A., 673. Heat capacities of vanadium, vanadium trioxide, vanadium tetroxide, and vanadium pentoxide at low temperatures, A., 673. See also Kelley, K. K.

Anderson, D., manufacture and use of artificial stone, (P.), B., 596.

Anderson, D. B., structure of the walls of

higher plants, A., 392.

Anderson, D. F. See Thompsett, S. L.

Anderson, D. L. See Wight, E. H.

Anderson, Ernest, isolation of pectic substances from wood, A., 534.

Russell, F. H., and Seigle, L. W., gum from lemon trees, A., 910.

See also Webster, J. E.Anderson, Evald. See Internat. Precipitation Co.

Anderson, E. M. J., and Fraser, A. H. H. influence of nutrition on the natural immunity reactions of the blood and on skin reactions to bacterial toxins, A., 622.

Anderson, G. See Hawley, E. E. Anderson, G. H. See Aktieb. Separator. Anderson, G. K., and Neville Co., polymerisation of [coumarone] resins, (P.), B., 31. Anderson, H. See Titanine-Emaillite, Ltd. Anderson, Hamilton H., and Anderson,

J. van D., iodine values and total lipins of leprous human blood-sera, A., 883. Shimkin, M. B., and Leake, C. D., acute

intraperitoneal toxicity of plant growth-substances for mice, A., 1553. See also Shimkin, M. B.

Anderson, $Herbert\ H$. See Schumb, $W.\ C$. Anderson, $H.\ W$. See Kadow, $K.\ J$.

Anderson, J. A., bitter-milk and cream, B.,

Anderson, John A. See MeQuarrie, I. Anderson, John Ansel, rust-resistance in wheat. VII. Analyses of hybrid lines of wheat differing in rust reactions, B., 340. See also Rose, \vec{R} . C.

Anderson, John Arthur. See Standard Oil Co.

Anderson, J. van D. See Anderson, Hamilton H.

Anderson, J. E., vacuum-oven moisture determination [for grain], B., 951.

Anderson, J. S., magnetic measurements in chemistry, A., 1056.
 Anderson, J. S. (Oxford). Sce Hope, Edward.

Anderson, John Stuart, complex compounds of the olefines with metallic salts. II. Homologues of Zeise's salt, A., 1098. Parachors of some metal carbonyl compounds, A., 1449.

Anderson, K. D., Crumpler, C. J., and Hammick, D. L., photochemical decomposition of nitrosoisopropylacetone and β -nitroso- $\beta\epsilon$ -dimethylhexane, A., 37.

Anderson, L. See Boots Pure Drug Co. Anderson, L. C. See Collison, R. C. Anderson, Leigh C. See Bates, J. R., and Halford, J. O.

Anderson, O. E. See Ballard, S. S.

Anderson, P. A., contact difference of potential between barium and silver; external work function of silver, A., 414. Anderson, R. C. See Chen, K. K.

Anderson, R. J., Crowder, J. A., Newman, M. S., and Stodola, F. H., lipins of tuberele bacilli. XLIII. Composition

of leprosin, A., 761.

Schoenheimer, R., Crowder, J. A., and Stodola, F. H., lipins of tubercle bacilli. XL. Presence of sterols, A., 249. See also Crowder, J. A., Pangborn, M. C.,

Salisbury, L. F., Sippard, R. H., Spielman, M. A., and Stodola, F. H. Anderson, R. S., bioluminescence. II.

Partial purification of Cypridina luciferin. III. Reversible reaction of Cypridina luciferin with oxidising agents and its relations to the luminescent reaction, A., 360, 1534.

Anderson, T. F., Raman spectrum of tetraethylsilane; vibrational resonance of tetra-alkyls, A., 547.

and Yost, D. M., thermodynamic properties of phosphorus compounds, A., 1340.

See also Yost, D. M.

Anderson, W., phosphate deposits of the Transvaal: analysis and determination of the P₂O₅ content, B., 788. Anderson, William, waterproofing of textile

fabrics, (P.), B., 100.

Anderson, W. C., cyclic process for removal of oxides of sulphur from waste gases, (P.), B., 233.

Anderson, W. E. See Oleott, H. S. Anderson, W. P. See Standard Oil Co. of California.

Anderson & Son, Ltd., D., and Reynolds, A., plaster board, (P.), B., 195.

Andersson, B., inhibition of the action of Schardinger's enzyme by co-enzymes containing adenine, A., 1151. Poisoning with copper and reactivation in enzymic oxidation-reduction, A., 1418.

Andersson, G. H., and De Laval Separator centrifugal separator, (P.), B., Co., 400.

Andersson, O. See Wirth, C. Andersson, Y. See Edin, H. Andes, J. E. See Beard, H. H.

Andes, J. O., tobacco bed soil disinfection, B., 116.

Ando, K., and Komiyama, T., diphtheria toxin produced on a semi-synthetic medium, A., 1423.

Ando, N. See Sasaki, Rinjiro.

Ando, S., catalytic hydrogenation of phenolic oil in low-temperature tar. III. Effect of catalysts, B., 132. High-pressure hydrogenation of low-temperaturo tar. IV. and V., B., 1075.

Ando, T. See Urushibara, Y.

Andra, (Mrs.) R., agglomeration of fossil silica, (P.), B., 790.

Andrade, E. N. da C., coagulation of smoke by supersonic vibrations, A., 1199. and Chiong, Y. S., determination of

viscosity by oscillation of a vessel enclosing a fluid. I., A., 447, and Rotherham, L., determination of

viscosity by oscillation of a vessel enclosing a fluid. II., A., 447. André, F., and Maurel, A., action of

chlorine and bromine on medicinal liquid paraffin, B., 728.

Andrée, K., occurrence, winning, and utilisation of Estonian shale, B., 177. Andrée, M. See Ohle, H.

Andreen-Svedberg, A. See Forbes, W. H. Andreev, A. F. See Kuzminich, I. N.

Andreev, C. C., mechanism of explosive reactions, A., 162.

Andreev, E. A., and Neuman, M. B., gas micro-analysis for following the course of oxidation of hydrocarbons, B., 50.

Andreev, I., treating methods for vapour-phase-cracked and "reformed" gasolines, B., 227.

Andreev, K. K., upper temperature limit of explosion of explosives, B., 910.

Andreev, N. N., measurement of the size of colloidal particles from the intensity of light transmitted through the solu-

tions, A., 27.
Andreev, N. Z., application of the Brochet-Cambier method to determination of aldehydes and ketones in waste products of synthetic rubber manufacture, B., 848.

Makashina, A. N., and Malitzeva, A. E., investigation, purification, and polymerisation with sodium of butadiene obtained by pyrolysis of petroleum,

B., 535. and Vergiles, F, regeneration of sodiumbutadiene rubber, B., 848.

Andreev, P. I. See Stender, V. V.
Andreeva, T. See Vanscheidt, A.
Andreeva, T. P. See Rntovski, B. N.
Andreevski, D. N., formation of aromatic

hydrocarbons in the pyrolysis of prop-ane-butane mixture, B., 536.

Andren, L., and Amer. Chain Co., Inc., welding electrode and coating therefor, (P.), B., 156.

Andresen, H. See Ollendorff, G.

Andrew, L. T., electron-diffraction analysis of orientation of molecules of lubricating oils, B., 436.

Andrew, R. H., and Fenger, F., new cestrogenic substance from ovaries, A., 1156. Isolation from ovarian tissue of a crystalline substance possessing high cestrogenic properties, A., 1563.

Andrew, R. L., and Mandeno, J. L., determination of iodine in iodised salt, B., 232. Andrew, T., and Holt, S., apparatus for controlling the humidity and temperature of air, (P.), B., 817.

Andrews, A., painters' problems, B., 702. Andrews, C. A., viscosity characteristics of chemically-doctored drilling fluid, B., 134.

Andrews, E., and Aronsohn, H. G., relative toxicity of different bile salts on the normal gall-bladder, A., 1551.

See also Aronsohn, H. G. Andrews, J. C., and D'Anvers, R. T., test for porosity in the coating of timplate, B., 793.

Andrews, James C., Johnston, C. G., and Andrews, K. C., absorption of cystine, methionine, and cysteic acid from intestinal loops of dogs, A., 1410.

and Randall, A., sulphur metabolism in cystinuria, A., 504.

Andrews, J. S. See Corwin, A. H. Andrews, J. T. R. See Richardson, A. S. Andrews, K. C. See Andrews, James C.

Andrews, M. R. See Gen. Electric Co. Andrews, M. R. See Gen, Electric Co.
Andrews, P. R., Finlayson, A., and Sealth
Corp., preservation of woven fabrics,
(P.), B., 1036.
Andrews, T., modern fatty oil [refining]
processes, B., 334.
Andrianov, K. A., direct benzylation of

monohydric phenols with benzyl chloride in presence of phosphorus pentoxide, A., 1244. See also Losev, I. P.

Andrianov, P. J., heat of wetting and physical significance of the constants in Rodewald's equation, A., 155.

Andrieux, J. L., electrolytic production of boron and its alloys, B., 414.

See also Soc. d'Electro-Chim., d'Electro-Métallurg., & des Acièries Electr. d'Ugine.

Andrievskaja, E. G. See Horovitz-Vlassova, L. M.

Andrus, O. G., and Smith Corp., A. O., electric arc welding, (P.), B., 843.

Willborg, K. S., and Smith Corp., A. O., [electrical] device for determining composition of fluids in motion, and for selectively distributing the flow of portions thereof, (P.), B., 157.

Angal, B., rotatory dispersion of essential oils, B., 171.

Angelescu, E., and Cismaru, D., simultaneous adsorption of two adsorbates which react together, A., 933.

and Eustatiu, C., binary liquid systems in which compounds are formed, A., 1331.

Angeletti, A., reaction between toluoquinone and cinnamaldehyde under the influence of light, A., 1111. Formation of d-fructose from mannitol by means of Penicillia, A., 1154.

[with Migliardi, C.], ditolyl series. Separation of dl-6-bromo-6'-amino-2:2'dimethyldiphenyl into its optical

antipodes, A., 64. Angelico, F., and Cusmano, S., oximinoacetophenone, A., 616.

Angelini, V., ferrochromium, (P.), B., 796. Angell, C. H. See Universal Oil Products Co.

Angell, H. R., Allan, J. M., and Hill, A. V., downy mildew (blue mould) of tobacco: its control by benzol and toluol vapours in covered seed-beds. II., B., 807. Angenot, P. See Henri, V.

Anger, P., jet-impact pulverisers, (P.), B.,

Angla, B., physico-chemical properties of lubricating olive oil, B., 461. Examination of the esters of essential oils, B.,

Anglade, M. See Quelet, R.

Anglo-Iranian Oil Co., Ltd., and Birch, S. F., imparting of bloom or green fluorescence to hydrocarbon lubricating oils, (P.), B., 137.

Angstadt, H. F., and Sun Oil Co., production of purified asphalt from soap-containing asphaltic petroleum residuum,

(P.), B., 917.

Angus, W. R., Bailey, C. R., Hale, J. B.,

Ingold, C. K., Leckie, A. H., Raisin, C. G., Thompson, J. W., and Wilson, Christopher L., structure of benzene. VII. Coincidental frequencies in the infra-red and Raman spectra of benzene and hexadeuterobenzene. VIII. Assignment of vibration frequencies of benzene and hexadeuterobenzene, A., 1322.

Bailey, C. R., Ingold, C. K., and Wilson, Christopher L., structure of benzene. I. Problem and experimental method,

A., 1322.

Ingold, C. K., and Leckie, A. H., structure of benzene. III. Raman spectra of liquid benzene and hexa-

deuterobenzene, A., 1322. and Leckie, A. H., Raman spectra. I. Raman spectra of sulphuric, nitric, and nitrosylsulphuric acids, A., 136. Raman spectrum of oxalic acid, A., 269, 777.

Leckie, A. H., Le Fèvre, (Mrs.) C. G., Le Fèvre, R. J. W., and Wassermann, A., constitution of dimerie keten, A., 191.

Leckie, A. H., and Wilson, Christopher L., Raman spectra. III. Deuteriumsubstituted acetic acids, A., 1050.

Anikeev, N. P., and Zorin, V. P., Angara-

Ilim iron-ore deposits of Eastern Siberia,

Anikin, B. N., influence on composition of pine bark of artificial drying and of natural factors, B., 420.

Anikin, N., Tartarinova, N., and Myssütkina, M., feeding of young animals with ozonised foods, B., 169.

Anissimov, S. B., Kraschennikova, V. M., and Platonov, M. S., catalytic properties of rhenium and of certain of its compounds, A., 169.

See also Platonov, M. S. Anissimov, S. M., and Zapevalov, G. G., rational analysis of lead compounds in oxide and semi-sulphide lead ores, B., 317.

See also Ageenkov, V. G.

Annetts, (Miss) M., digestion products formed by the action of papain on

ovalbumin, A., 1535. and Leitch, J. D., effect of physical factors on counting of silica dust suspended in water, B., 397.

and Newman, L., spectroscopic determination of adsorbed ions, A., 444.

Annicq, J., treatment of spools of textile material with liquids or other fluids, (P.), B., 17. Process and device for treating with liquids, textile yarns in cake or coreless spool form, (P.), B., 985.

Anosov, V. J., correlations between curves of inverse properties in binary systems, A., 931. Shape of curves representing properties in binary systems in the case of formation of an undissociated chemical compound, A., 931. Refractometry of binary liquid systems. III., A., 1454. Representation of multi-component systems; spiral co-ordinates, A., 1465. Representation of properties in ternary systems; central and peripheral vectors, A., 1465.

Anrep, G. V., and Barsoum, G. S., appearance of histamine in venous blood during

muscular contraction, A., 496. Ansbacher, S., Flanigan, G. E., Supplee, G. C., and Borden Co., precipitation of proteinaceous matter by chlorine, (P.), B., 1176.

See also Supplee, G. C. Anschütz, L., Koenig, Franz, Otto, F., and Walbrecht, H., valency problem of the quinquevalent phosphorus atom. II., Ā., 1377.

Anselm, F., pH measurements, dark-coloured substances, and indicator methods, A., 445.

and Würstlin, F., apparatus for photometric and colorimetric measurements using the photometric law of distances, A., 954.

Anselm, W., evaluation of [cement]

clinker, B., 1095.

Anselme, C. See Weil, G. P.

Anselmi, S., anhydromethylenecitrates of alkaloids. I. Salts of cinchona and nux vomica alkaloids, A., 1003.

Anselmino, K. J., Effkemann, G., and Hoffmann, Friedrich, action of the fat metabolism hormone of the anterior pituitary on the saturated and unsaturated fatty acids of the liver, A.,

Herold, L., and Hoffmann, Friedrich, comparison of the actions of the corticotropic hormone of the anterior pituitary in different species of animals, A., 251. Adrenalotropic action of the anterior pituitary, A., 387. and Hoffmann, Friedrich, acetonuria

after administration of the (pituitary) fat-metabolism hormone, A., Effect of extracts of anterior lobe of the pituitary on blood-sugar after elimination of the adrenals, A., 1157. Thyroid function and detection of thyroid hormone in pregnancy, A., 1302.

Hoffmann, Friedrich, and Rhoden, E., antagonistic action of adrenal cortex hormone towards the fat- and carbohydrate-metabolism hormones of the anterior pituitary gland, A., 1030. Fat storage in liver by treatment with the fat-metabolism hormone of the anterior lobe of the pituitary, A., 1563.

Anslow, (Miss) G. A., total ionisation produced by electron collisions in nitrogen, A., 4.

and Watson, (Miss) M. de B., total ionisation of nitrogen by electron collisions, A., 1041.

Anson, M. L. See Mirsky, A. E.

Ant-Wuorinen, O., detection of saccharin and dulcin in beer, B., 167.

Antares Trust, Registered. See Schaarschmidt, A.

Antelmann, H., antiseptic properties of hops, B., 901.

Antelyes, J. See Hughes, J. S.

Anthony, A. J., regulation of respiration with oxygen-poor air mixtures, A.,

Anthony, J. K., and Fay, H. B., vulcanised fibro, (P.), B., 15, 735.

Anthracite Separator Co. See Pardee, F.,

and Pardee, F., jun.
Antioch Industrial Research Institute, Inc. See Bucher, J. E.

Antipin, P. F., and Alabuischev, A. F., reduction of magnesium oxide by silicoaluminium; electrometallurgy of mag-

nesium and its alloys, B., 414.

Antipov-Karataiev, I. N., and Brunovsky, B. K., chemical and X-ray investigations of colloid fractions of soils, B., 707.

Antognetti, L., protein and electrolyte contents of the plasma and transudates (serous effusions and subcutaneous fluid), A., 355.

Antoni, A., drying by spraying or atomisation, B., 767.

Antoniani, C., cellobiase activity of the bovine rumen, A., 110. Ratio of aand β -glyeerophosphoric acids in human brain-lecithin, A., 1011. β -Glucosidase from Sorghum saccharatum, A., 1151.

and Clerici, A. S., carbohydrate meta-bolism of the mammary gland in

vitro, A., 1144.

Antonov-Romanovski, V., direct proof of the bimolecular process in the luminescence of zinc phosphors, A., 923.

Antonova, K. See Goldberg, D.

Antopol, W., and Rössler, R., action of extracts of posterior lobe of pituitary on the heart of dogs under normal conditions of circulation, A., 526. Sec also Schifrin, A.

Antropost, A. von [with Jungbluth-Ficht, R., and Hoeppener, M.], at. wt. of ncon, A., 130.

[with Steinberg, F., Kalthof, F., Schmitz, L., and Schaeben, R.], adsorption of argon and nitrogen from the lowest to the highest pressures by active carbon, A., 1063.

Antropova, N. I. See Rutovski, B. N.

Antunes, M. T., are spectrum of cobalt

between 2450 and 1960 A., A., 916.

and Catalán, M. A., lines in the arc spectrum of cobalt not emitted by Co I, A., 769.

Sec also Catalán, M. A.

Antunez de Mayolo, S., interpretation of the fine structure coefficient, a, A., 128. Determination of the constant a of fine structure by the unitary theory of the electromagnetic field, A., 660.

Antweiler, H. J., application of polarographic method in analytical chemistry. I. Theoretical introduction, A., 692.

See also Stackelberg, M. von. Anxionnaz, R. See Mazé, P. Anzelmi, E. See Smith, G. B. L. Aoe, I. See Minatoya, S. Aoki, H. See Kikuchi, S. Aoki, K. See Usui, R.

Aoki, N., and Ikcda, Z., type alloy; relation between Brinell hardness and equilibrium diagram of a lead-antimonytin alloy, B., 1099.

Aoki, S. Sec Osugi, S.

Aoyama, Shin-ichi, Fuknroi, T., and Suzuki, K., action of various elements and compounds on photographic plates. III., A., 1473.

and Kanda, E., determination of fixed points at low temperatures with a

hydrogen thermometer, A., 20. Aoyama, Shinjiro, Eguchi, J., and Tashiro, C., purity of p-nitrophenetole, p-phenetidine, and phenacetin prepared from p-chloronitrobenzene, and purification of p-nitrophenetole and pphenetidine, B., 428.

and Morita, I., m.p. curve of o-anisidine and o-chloroaniline mixtures, A., 1242.

Aoyama, T. See Maki, T.

Apanaev, O. S., and Zuibin, F. E., dry willow tanning extract, B., 947.

Apex Smelting Co. See Starmann, G. H. Aplin & Barrett, Ltd. See Classey, L. Appareils & Evaporateurs Kestner, priming of centrifugal pumps, (P.), B., 131.

Appel, W. D., and Jessup, D. A., accelerated ageing test for weighted silk, B., 315.

Appell, A. A., effect of jejunal feeding on

gastric acidity, A., 625.

Apperly, F. L., gastric acidity and its significance, A., 362.

Applebey, M.P., and Ogden, G., electrolytic preparation of deuterium and separation coefficient a, A., 298.

Applegate, A., lead carbonate, (P.), B., 1038.

Appleman, D. See Cameron, S. H. Appleton, E. V., and Boohariwalla, D. B., influence of a magnetic field on high frequency conductivity of an ionised medium, A., 18.

Appleyard, E. T. S., spreading in the first

positive bands of nitrogen, A., 1309.

Apsits, J., influence of artificial and natural factors on structure of soils, B., 383.

Aptekar, R. E., sea-coal analysis as applied to black sand, B., 624.

Ara, A. See Guzmán, J.

Arakatsu, B., Kimura, K., and Uemura, Y., artificial transmutation of light elements bombarded by ions of hydrogen and heavy hydrogen. I., A., 1441.

Arakawa, S., effect of inoculation on the lupin (Lupinus luteus, L.) as green manure with reference to changes in its composition towards maturity, B., 247.

Araki, G., pharmacology of methylglyoxal. I., A., 1148.

Araki, H., influence of peripheral lymph on blood-sugar fluctuation due adrenaline, A., 116.

Araki, M., and Hōjō, G., $p_{\rm H}$ of peripheral lymph, A., 97.

Araki, T., and Kurihara, M., connexion between emission intensity and violet displacement of the absorption lines in the spectrum of P. Cygni, A., 1040.

Aram, E. H. G. See Brit. Coal Distillation. Aranda, V. G., variation of physical constants in homologous scries. I. Hydrocarbons, A., 1090.

Arany, S., composition of Hungarian low-land soils. III. Alkali soils; exchange-

able bases, B., 1114.

Arapova, A. A., distribution of different fractions of acid-soluble phosphorus in blood of dogs during intermediary metabolism, as observed on an empty stomach after introduction of glucose and radon, A., 94.

Arashima, T., influence of chronic thallium poisoning on the function of the female sex organs of rats, A., 1148.

Arasimovitsch. V. V., inheritance of sugar content in cucurbits, A., 766.

See also Ivanov, N. N.

Arbusov, A. E., and Abramov, V. S., dibutylphosphorous acid chloride and preparation of butylpyrophosphorous acid from it, A., 321.

and Kuschkova, N. P., action of certain dihalogen derivatives of hydrocarbons on ethyl phosphite and on diethyl

phosphites, A., 964. and Lugovkin, B. P., action of primary aromatic amines on ethyl hypophos-

phate, A., 977.

and Michailova, B. M., ethyl acetal of cyclohexanone, and its transformation into cyclohexenyl ethyl ether, A., 605. Ethyl acetal of cyclohexanone, and its transformation into cyclohexenvl ether. A., 987.

and Zaitzev, I. A., catalytic decomposition of ethyl propyl ketone phenylhydrazone, A., 342.

Zaitzev, I. A., and Razumov, A. I., preparation of substituted indoles by catalytic decomposition of phenyl-

hydrazones, A., 998.

Arbusov, B. A., isomerisation of a-pinene to an aliphatic terpene allocimene. III. Conditions of formation and properties of the terpene. IV. Structure of the terpene. VI. Isomerisation of nopinene, $d-\Delta^3$ -carene, camphene, and pinocamphone, A., 607, 992. Isomerisation of oxides of terpenes. I. Isomerisation of α-pin-ene oxide by Reformatski's reaction, A., 992.

Salmina, E. P., and Schapschinskaja, O. M., diene synthesis, A., 78.

and Schapschinskaja, O. M., structure of abietic acid. II. Attempted synthesis of 1:3-dimethylcyclohexane-1:2:3-tricarboxylic acid, A., 985.

Arbusov, G. A., high-grade tanning material, B., 244. Influence of pickle and of different compounds on the diffusion and fixation of sulphite-

cellulose tanning materials, B., 948. and Borodina, O. J., investigating tannides used in vat-tanning by tanning factors and astringency, B.,

Arbusov, J. A., and Michailov, B. M., thermal decomposition of dimethylcyclohexanes, A., 712.

See also Michailov, B. M.

Arbuthnot, F. S., and Campbell, J. S., treatment of seaweed for manufacturing purposes, (P.), B., 1111. Arcadi, V. G. See Sowa, F. J.

Arceneaux, G., ripening of sugar cane in Louisiana: effect of topping on yields of cane and sugar per acre, B., 115.

Archangelski, P. A. See Jakovkin, A. A. Archbold, H. K., and Barter, A. M., fructose anhydride from leaves of the

barley plant, A., 258.

Archer, C. T., thermal conductivity of deuterium, A., 1331.

Archer, R. M., vacuum joints in metal apparatus, A., 815.

Archer, R. S. See Hoyt, S. L.

Archiald, E. H., and Hooley, J. G., at. wt.

of rubidium, A., 657. Hooley, J. G., and Phillips, N. W. F., at. wt. of rubidium, A., 263. Archibald, F. M., Beamer, C. M., and Standard Alcohol Co., removal of objectionable organic sulphur from isopropyl and higher sec.-alcohols, (P.),

Janssen, P., and Standard Alcohol Co., recovery of alcohols from hydrocarbons,

(P.), B., 969.

Sec also Standard Oil Development Co. Archibald, R. M., modification of the copper-lime technique for separation and recovery of carbohydrates from biological fluids, A., 259. See also Harding, V.J.

Archipov, V. P. Sec Botschvar, A. A. Archipova, M. S. Sec Kuzminich, I. N. Arczynski, T. See Jellinek, K.

Ard, C. E., and Fantz, F. C., return-bend fitting for oil stills, (P.), B., 262. Return

bend for cracking stills, (P.), B., 1190.

Ardenne, M. von, photometric investigation and measurements of spectral intensity distribution of fluorescent screens. especially on irradiation with electron rays, A., 408.

Groos, O., and Otterbeiu, G., dispersion determinations with decimetre waves,

Ardern, E., and Jepson, C., performance of the new activated sludge plant at the Davyhulme sewage works, B., 301.

and Lockett, W. T., digestion of activated

sludge [from sewage], B., 301.
Ardissone, M. See Devoto, G.
Ardy, C. See Bonsignore, A.
Arend, J. P., Jungblut, A., and Aschman, C., relation between constitution of oölitic minerals and nature, formation, and entrapment of blast-furnace dust, B., 321. Arends, E. See Küstner, II.

Arens, H., action of oxidising agents on the latent image, B., 349.

and Eggert, John, recovery of silver from used fixing baths, B., 1131.

and Luft, F., theories of the latent photographic image, A., 943.

Argue, G. H. See Boomer, E. H.
Arguelles, A. S. See Rosell, D. Z.
Argy, W. P., Linegar, C. R., and Dille,
J. M., barbiturates. XV. Excretion of barbital in normal and nephritic subjects, A., 1145.

Arighi, A. L., Joslyn, M. A., and Marsh, G. L., enzymic activity in frozen vegetables, B., 760.

Arii, K., sorption of sulphur dioxide by active charcoal. VI. Rate of sorption. VII. Sorption equilibrium at low temperatures, A., 153, 791.

Arima, K., influence of morphine on loca

anæsthesia of the cornea through various local anæsthetics in rabbits, A., 107.

Aristova, Z. See Rabinerson, A. Ariyama, II., effect of yeast on malnutrition

of rats caused by a high sucrose diet, A., 628. See also Chen, C. Y.

Corporation. See Arizona Minerals Ralston, O. C.

Arkadiev, V., analysis of dynamic curves for magnetic permeability and losses in iron, A., 415. Continuous magnetic spectrum at audio-frequencies of transformer lamina, A., 1452.

Arkel, A. E. van, chemical linking, A., 1051. Recrystallisation phenomena

[of metals], B., 600.

and Carrière, G., practical application of electrostatic valency; strength of acids, A., 563.

Arkel, A. E. van, Verwey, E. J. IV., and Bruggen, M. G. van, ferrites. I. and II., A., 810.

and Vles, S. E., solubility of organic compounds in water, A., 1063.

Arkel, C. G. van, synthesis of drugs in connexion with the constituents of naturally occurring materials, B., 715.

Arkema, H. P. Sec Western Electric Co.

Arkina, S. E. See Razuvaiev, G. A.
Arledter, H., theory of the action of conical save-alls, B., 735.

Arloing, F., Morel, A., and Josserand, A., effect of intravenous injections of complex soluble salts of iron and ascorbic acid on tumours, A., 100. Action in vitro of iron-vitamin-C complexes with different bases on coagulation of blood, A., 358. Soluble ergano-metallic complexes of dehydroascorbic acid; increase of their effects on cancers by variation of the metal, A., 626. Anticoagulant action in vitro of complex salts derived from vitamin-C and copper, titanium, or zinc, associated with other metals, A.,

Morel, A., Josserand, A., Chambon, M., and Cellière, S., variations of polypeptidemia in cancerous patients treated by intravenous injections of complex salts derived from vitamin-C (ferriscorbones), A., 504.

Morel, A., Josserand, A., Collet, P., and Badinand, A., effect of intravenous injections of sodium "ferriscorbon" on acetonuria in spontaneous diabetes

of the dog, A., 1015.

Morel, A., Josserand, A., Thévenot, L., and Perret, J. M., effect of complex organo-metallic derivatives of vitamin-C on fermenting power of brewer's yeast, A., 1026.

Arman, A. N., and Starr, A. T., measure-

ment of discharges in dielectrics, B., 797.

Armand-Delille, P., Mentzer, and Urbain, assimilation of carbohydrates (starch and its hydrolysis products) in infants under six months on an artificial or mixed diet, A., 1290.

Armbruster, F. R. See Kobe, K. A. Armeanu, V. See Spacu, G. Armentano, L., central regulation of basal metabolism, A., 367. Ascorbic acid in paroxysmal hæmoglobinuria, A., 883.

Bentsáth, A., Hámori, A., and Korányi, A., action of ascorbic acid on metabolism and on blood, A., 905.

Armistead, G., jun. See Texas Co. Armour, A. M., and Associated Electrical Industries, apparatus for separating magnetic particles from liquids, (P.),

Armour, G. L., identification of brands of liquid hydrocarbons, (P.), B., 438.

Armour, J. W., and Riley Stoker Corp., pulveriser hammer, (P.), B., 672. Beater elements for pulverising apparatus, (P.), B., 816.

Armour & Co. See Christensen, C. W., Fischer, N. C., and Ralston, A. W. Armstrong, A. H. See Hudson, J. C.

Armstrong, A. R., and King, E. J., serumphosphatase in toxic and hæmolytic jaundice, A., 365.

Armstrong, F.H. See Cartwright, K. St. G. Armstrong, H. H., extraction of metals from beryllium minerals, (P.), B., 843. and Menefee, A. B., flotation of uranium ores, particularly carnotite, (P.), B., 646. Armstrong, P. A. E., welding of alloy steels, (P.), B., 795. [Welding] of composite metal bodies, (P.), B., 1161.

Armstrong, R. T. See Ashdown, A. A., Harris, L., and King, G. W.

Armstrong, T. N., properties of cast alloy steels, B., 196.

Armstrong, W. D., micro-determination of fluorine, A., 1351.

See also Brekhus, P. J. Armstrong Cork Co. See Claxton, E., Paschke, H., and Pennell, P. H.

Armstrong, Whitworth & Co. (Engineers), Ltd., W. G., and McKinnell, J., melting furnaces, (P.), B., 721.

Arnaud, G., and Barthelet, J., fruit tree and vine spraying trials, 1935, B., 1061.

Arnaudo, A. See Castex, M.

Arnd, T., and Segeberg, H., determination of nitrate- and nitrite-nitrogen with copper-zinc powder, A., 442. Water-absorbing capacity of peat and its relationship to so-called "soil sickness," B., 562.

Arndt, C. D. See Woods, E.

Arndt, F., nitrosomethylcarbamide, A.,
597. Diazomethane, A., 598. Behaviour of tautomeric substances towards diazomethane, A., 1368. and Eistert, B., concepts of "resonance"

and "intermediate stages" for organic substances with multiple linkings, and electronic formulæ, A., 410. Conversion of carboxylic acids into their homologues, A., 1106. Chemistry of the Claisen condensation, A., 1487.

Eistert, B., Scholz, H., and Aron, E., synthesis of dehydracetic acid from

othyl acetoacetate, A., 1516.
Scholz, H., and Frobel, E., relationships between acidity and tautomerism. IV. Effect of the cyano-group, A., 59.

Arndt, K., proprietary materials for starter batteries, B., 844.

Arner, W. J. See Ryan, J. D. Arness, W. B., and Alloy Res. Corp., [corrosion-resistant ferrous] alloys, (P.), B., 601.

and Rustless Iron Corp. of America, [stainless steel] alloys, (P.), B., 937.

Arnielt, H., and Westgren, A., crystal structure and composition of intermediary phases in iron-tungsten and iron-molybdenum alloys, A., 926.

Arni, H. See Stenzl, H.
Arnim, K. See Grassmann, W.
Arnold, A. See Elvehiem, C. A. Arnold, A. A. See Gilbert, A. C.

Arnold, C. R., recovery of gold [from ore], (P.), B., 505.

Arnold, E. L., and Horsfall, J. G., use of graphite to prevent clogging of drills

when sowing dusted pea seed, B., 612. Arnold, F. See Bleyer, B., and Diemair, W.

Arnold, G. D., centrifugal separator, (P.), B., 577.

Arnold, H. L., Middleton, W. S., and Chen, K. K., action of thevetin, a cardiac glucoside, and its clinical application, Ă., 375.

Arnold, H. R. See Du Pont de Nemours & Co., E. I.

Arnold, H. W., and Evans, W. L., mechanism of carbohydrate oxidation. XXI. Synthesis of glucosidoglyceraldehyde derivatives. XXII. Preparation and reactions of glyceraldehyde diethyl mercaptal, A., 1489.

Arnold, L. See Weiss, E.

Arnold, M. L. See Valby, E. P. Arnold, O., Holtz, F., and Marx, H., relation of sex hormones to calcium metabolism in the bone marrow, A., 901. Arnold, O. M. See Williams, John Warren. Arnold, P. A., liquid fuels, (P.), B., 1189.

Arnold, R. N. See Lea, F. C.

Arnold, R. T., and Fuson, R. C., synthesis of mixed benzoins. II., A., 1110.

Arnold, W. See Blank, I. H.
Arnone, R. See Guercio, F.
Arnot, F. L., errors of approximation in Jeffreys' phases, A., 404. New process of negative ion formation, A., 1042. and Milligan, J. C., formation of negative atomic ions of mercury, A., 400. Formation of mercury molecules, A.,

Arnulf, A., ultra-violet spectrum of the night sky, A., 770.

Barbier, D., Chalonge, D., and Canavaggia, (Mlle.) R., colour temperatures and continuous absorption of hydrogen for stars of the first spectral types, A., 770.

and Lyot, B., large-aperture spectrograph suitable for the ultra-violet, A., 305.

Aron, E. See Arndt, F. Aron, E. I., vapour-phase cracking of shale tars, B., 483.

Aron, M., differentiation between the principle of urine of cancer active on the adrenal cortex, and the principle active

on the ovary, A., 626.

Aronov, S. G. See Hoftman, M. V.

Aronovitsch, P. M. See Kuznetzov, V. I. Aronsen, J. D. See Long, E. R.

Aronsohn, H. G., and Andrews, E., effect of varying $p_{\rm H}$ on toxic effect of bile salts on the normal gall-bladder, A., 1551.

See also Andrews, E.

Aronson, E. M. See Stender, V. V.

Arquet, M., vaporisation of boric acid in the cold with the vapours of the lower homologues of primary alcohols, A., 1062. Arragon, G., two forms of methylated derivatives of sorbose, A., 1234.

Arrant, H. R., determining the effectiveness of activated carbon [for water

purification], B., 862. rrhenius, S. See Watson, C. C.

Arrhenius, S. See Watson, C. C. Arrillaga, J. G., nature of inhibition between fungi parasitic on citrus, A., 247.

Arroyo, R., production [by fermentation] of butyric acid from molasses, B., 167. Utilisation of waste molasses in production of acetone, butyl alcohol, and butyric acid, B., 662.

See also Potts, H. E. Arsandaux, H., violet fluorspars, A., 450. Arseniuk, A. A., new sources of potassium.

Arsenjeva-Heil, A., Heil, O., and Westcott, C. H., influence of temperature on the groups" of slow neutrons, A., 1314.

Arthur, F. C., aluminium inks, B., 751. Arthur, J. M. See Stewart, W. D.

Artom, C., and Peretti, C., phosphoaminolipins of the enteric mucosa and fat absorption. I. and II., A., 1017. Lipins of thoracic lymph during absorption of neutral fats, A., 1018.

and Reale, L., solubility of mono-, di-, and tri-olein in some organic solvents, A., 932. Products of synthetic action of pancreatic lipase on oleic acid and glycerol, A., 1024. Formation of intermediate products during pancreatic digestion of neutral fats, A., 1024.

Artuinov, G. B., detection and determination of bilirubin, A., 1008.

Arup, P. S., explosiveness of methylated ether, A., 963.

See also Gilmour, G. van B.

Arventi, B. I., synthesis of 1:2-diphenylcoumarones, A., 732.

Arzberger, C. F. See Commercial Solvents

Corp.

Arzibischev, S. A., electrolysis of copper

in rock-salt, A., 31.
Bogomolova, M. N., Borissov, N. V., and Repse, I. C., penetration of copper and gold ions into transparent crystals of NaCl and KCl, A., 931.

Arzimovitsch, L. A., Kurtschatov, I. V., Latischev, G. D., and Chromov, V., absorption of neutrons in water, paraffin, and charcoal, A., 541.

See also Alichanian, A. I.

Asahina, T., and Yokoyama, K., fusion surface of the ternary system of organic compounds. I., A., 429.

Asahina, Y., preparation of d-trans-π-oxocamphor from isoketopinic acid, (P.), B., 444.

[with Miyasaka, M., and Sekizawa, T.], lichen substances. LXVIII. Preparation of higher homologues of orcinol, A., 1104.

Asano, J., Tanase, Y., and Ueno, Y., gentiopicrin. I., A., 731.

and Fuzikawa, F., lichen substances. LIX. Non-existence of y-collatolic acid. LX. Microphyllic acid and its fission products. LXI. Olivetoric acid. III.. Ā., 73.

and Hiraiwa, M., lichen substances. LXIV. Constitution of thamnolic acid.

IV., A., 470.

and Ishidate, M., preparation of optically active trans-π-hydroxycamphor from optically active aπ-trans-dihalogenocamphor, (P.), B., 687.
Ishidate, M., and Sano, T., borneol-

isoborneol question, A., 475.

Ishidate, M., and Tukamoto, T., oxidation of bornyl acetate, A., 476. New camphor derivative, "ketobornylene," A., 476.

and Kusaka, T., lichen substances. LXV. Ramalinolie acid, a new depside. LXX. Synthesis of ramalinolic

acid, A., 470, 1508.

Tanase, Y., and Yosioka, I., lichen substances. LXIII. Components of Bæomyces varieties, A., 470.

and Yanagita, M., lichen substances. LXII. Components of Cetraria islandica, Ach. LXIX. Usnic acid. I., A., 314, 1262.

Yanagita, M., and Yosioka, I., lichen substances. LXVII. Stietic III., A., 986.

and Yasue, M., lichen substances. LXVI. Constitution of lobaric acid. II. LXXI. Synthesis of diploschistessic acid, A., 850, 1508.

and Yosioka, I., elimination of methyl from an o-methoxybenzaldehydeanil,

A., 987. i, T., alcohol- and carbohydrateoxidising bacteria isolated from fruits, and a new classification of oxidising bacteria. II. and III., A., 113, 1422. Asai, Y. See Yano, T.

Asakuma, S., extractives of peripheral lymph, A., 97. Non-protein-nitrogen of vascular lymph, A., 98. Asano, J. See Asahina, Y.

Asbury, R. S., device for determining rate of siphoning in metal extraction systems, A., 583. Action of solvents on coal, B., 770.

Aschaffenburg, R., surface properties of non-aqueous solutions, A., 1458.

Ascham, L., iron metabolism of pre-school children, A., 513.

Aschan, O., camphor series; structure of camphene-lauronolic acid, A., 856.

Aschehoug, V., vitamin-C content of tomato purée. II., B., 953.

Aschheim, S., pregnancy tests, A., 627. Aschkinasi, M., Kurnossova, P., and Finkelstein, V. A., Raman effect in non-

aqueous electrolytic solutions. II. Solutions of antimony trichloride, A., 1459.

Aschman, C. See Arend, J. P. Asenjo, C. F., Dalman, L. M., and Axtmayer, J. H., vitamin-A content of West Indian shark (Carcharinus sp.) liver oil, A., 904.

Asghar, A. G. See Puri, A. N. Ash, C. N. See Englund, L. H.

Ash, C. S., metals in wineries, B., 119. Roleson, E. P., and California Packing Corp., treatment of fruit juices, (P.),

B., 1126. Ashburn, H. V., Collett, A. R., and Lazzell, C. L., β -amyloxyethyl esters of p-aminobenzoie acid, A., 1359.

Ashcroft, W., working copper and copper-

zinc alloys, B., 1157.

Ashdown, A. A., Harris, L., and Armstrong, R. T., ultra-violet absorption of cyclopropane and propylene; preparation and b.p., A., 831. See also Harris, L.

Ashford, C. A., Klein, Louis, and Wilkinson, J. F., non-identity of lactoflavin and the "extrinsic factor" in pernicious anæmia, A., 363.

Ashford, T. A. See Kharasch, M. S.

Ashman, A. O. See Bunce, E. H. Ashman, G. W., panel-test evaluation of exterior house paints, B., 893.

Ashton, F. L., rapid colorimetric method for determining nitrate-nitrogen in grass, B., 71. Selenium as catalyst in Kjeldahl method as applied to soil and grass analysis, B., 514. Influence of temperature of ashing on accuracy of determination of phosphorus in grass, B., 522.

Ashton, G. B., and Victor Chem. Co., cleaning of [glass-lined vessels], (P.), B., 990.

Ashton, P. V. See Cave, D. B.

Ashton, R., Robinson, Robert, and Smith, J. C., tricosanoic and tetracosanoic acids and their derivatives, A., 454.

Ashworth, D. I., and De Laval Separator Co., distilling of liquids, (P.), B., 432.

Ashworth, J. R., properties of Heusler's alloy, and true specific heat of manganese and its discontinuity, A., 790.

Ashworth, U. S., growth and development. XXXVII. Inter-relations between protein intake, endogenous nitrogen excretion, and biological value of protein, A., 629.

See also Hogan, A. G.

Askew, F. A., surface phenomena; films, A., 1458;

Farmer, S. N., and Kon, G. A. R., sapogenins. I. Sapogenins of sarsaparilla

root, A., 1386. Askew, H. O., p_{ij} values and titratable acidity of apple juices, B., 1066.

Askew, H. O., and Chittenden, E., use of borax in control of "internal cork" of apples. II. Effect of tree injection of borax solutions on boron status of apple trees. III. Effect of borax sprays on boron status of fruit and incidence of "internal cork" in apples, B., 1224.

Chittenden, E., and Thomson, R. H. K., use of borax in control of "internal cork" of apples. I. Influence of borax top-dressing on boron status of soil, fruit, and leaves, B., 1224.

and Dixon, J. K., importance of cobalt in treatment of certain stock ailments in South Island, New Zealand, B., 1062.

Rigg, T. [with Stanton, D. J., and Chittenden, E.], manuring of Nelson pastures, B., 1011.

See also Rigg, T.

Askhedkar, D. Y. See Thatte, Y. N. Aslander, A., soil extracts as nutrient solutions for higher plants, B., 897.

Asmolov, E., variations in the nitrogen fractions and water content of rabbit muscle at different stages of growth. I. Water, residual nitrogen, and preformed amino-nitrogen. II. Total and amino-nitrogen in hydrolysed muscle, A., 1011.

Asmus, E., external photo-effect in alkali halides coloured by cathode rays, A.,

1181.

Asplund, A. J. A., and Aktieb Defibrator,

[wood] pulp, (P.), B., 690.

Asprey, R. W., compounded hydrocarbon lubricating oils and greases, (P.), B., 918. Asser, E., paint problems in navigation, B., 847. Stable lecithin emulsions, (P.), B., 299. Linseed oil economy with improvement in [paint] quality, B., 1165.

Assheton, E., synthetic stoving finishes, B., 510.

Assinder, E. W., acriflavine as a urinary antiseptic, A., 503.

Assmann, K., non-poisonous plating baths, B., 238.

Associated Electric Laboratories, Inc. See Homer, W.J.

Associated Electrical Industries, Ltd. See Armour, A. M., Bancroft, F. E., King, S. G. H. B., Moritz, M. R., and Walker, C. H.

Associated Metals & Minerals Corporation, and Queneau, A. L. J., removal of contaminating metals and metalloids from zine-bearing materials, (P.), B., 1038.

Assurex le "Roi des Verres de Securité" Magnien, Monnier, & Co., electric furnaces for heating sheets of plate or sheet glass before tempering, (P.), B., 155. Tempering of glass, (P.), B., 409. Toughening of [plate] glass, (P.), B., 498. Hardened or tempered glass, (P.), B.,

Ast, M. G., and Bogert, M. T., thiazoles. XXII. Synthesis of some 6-methoxyand 5:6-dimethoxy-benzthiazoles and of certain dyes obtainable therefrom, A., 869.

Astascheva, A. A. See Saslavski, I. I. Astbury, W. T., X-ray studies of protein structure, A., 872.

and Dickinson, (Mrs.) S., X-ray study of myosin, A., 784.

Aston, B. C., report of chemistry section, A., 1016.

Aston, F. W., masses of light atoms measured by means of a new mass spectrograph, A., 400. New data on isotopes, A., 657.

Aston, J., Story, E. B., and Byers Co., A. M., wrought iron, (P.), B., 415.

Aston, J. G., and Messerly, G. H., entropy of organic compounds from calorimetric data; lack of equilibrium in crystalline tetramethylmethane, A., 937.

Astrachantzev, P. I., and Dorogov, N. N., chloro-organic solvents; development and uses of such solvents in U.S.S.R.,

B., 1032.

Astrowe, P. S., and Morgen, R. A., dermal

absorption of vitamin-D, A., 647.

Astruc, H., and Castel, A., "coffee wines,"
B., 214. Silicofluoride insecticidal powders for vines, and fluorine in the resulting wines, B., 293.

Asundi, R. K., rotational analysis of the Angström bands [of carbon monoxide] at $\lambda\lambda$ 6080 and 6620 A., A.,

1177.

Jan-Khan, M., and Samuel, R., spectra

of SeO and SeO., A., 8.

and Samuel, R., absorption spectra of chlorides and oxychlorides of sulphur, A., 267. Spectrum of SiF, A., 661. Band systems and structure of SiF, A., 775. Electronic configuration and bond energy, A., 925. Dissociation of carbon monoxide, A., energy 1177.

Aszódi, Z., and Pélyi, J., animal calorimetry. XI. Specific dynamic action

of carbohydrate, A., 511.

Atalian, A. See Potolovski, L.

Atamantschukov, G. D. See Sergeev,

Atanasiu, I. A., potentiometric determination of cerous salts with ferrocyanide, A., 1082.

Atanasiu, J. S. See Cosmovici, N. L.
Atchley, D. W. See Loeb, R. F.
Ateliers, J. Hanrez Société Anonyme,
apparatus for separation of dust from, and purification of, gases by washing, (P.), B., 912.

Aten, A. H. W., fundamentals of the electrochemical theory of corrosion, B., 697. Electrical pasteurisation of liquids, B., 747. Condition of electrolytes in aqueous solutions, A., 1336.

Aten, A. H. W., jun. See Urey, H. C. Athanasiu, G., Becquerel cells, A., 31.

Atkeson, F. W. See Woods, E.

Atkins, B. E. See Grew, K. E. Atkins, G. A. See Davies, William.

Atkins, W. R. G., determination of zinc in sea-water using sodium diethyldithiocarbamate, A., 579. Preservation of fishing nets by treatment with copper soaps and other substances. III., B., 490.

and Purser, J., preservation of fibre ropes for use in sea-water, B., 490.

See also Poole, H. H.

Atkinson, E. R. See Huntress, E. H. Atkinson, H. J. See Gray, P. H. H. Atkinson, J. D. See De Wha

See De Whalley, $H.\ C.\ S.$

Atkinson, J. S., and Stein & Atkinson, furnaces, (P.), B., 769. Furnace apparatus for heat-treatment of metallic or other bodies, (P.), B., 1184.

Atkinson, R. $D^{\dagger}E.$, evidence

⁵He, A., 1440.

Atkinson, R. H., and Raper, A. R., metals of the platinum group; ores, recovery and refining, fabrication and uses, and

properties, B., 995.

Atkinson, W. H., determining solids con-

tent of eggs, (P.), B., 297.

Atlantic Refining Co., and Malisoff, W. M., [high-pressure] lubricants, (P.), B., 584. Lubricants, (P.), B., 918. See also Chillas, R. B., jun., Henderson,

L. M., Hill, J. B., Malisoff, W. M., Murphy, G. B., Perkins, I. M., Peterkin, A. G., jun., and Smith, L. B.

Atlas Ago Chemische Fabrik Akt.-Ges., mirror polish on paper, fabric, and similar material, (P.), B., 187.

Atlas Powder Co. See Bucy, E. H., and Creighton, H. J.

Atlas Tack Corporation. See Leahy, J. F.Atmospheric Nitrogen Corporation, and Beekhuis, H. A., jun., alkali and alkaline-earth nitrates, (P.),

See also Beekhuis, H. A., jun., Bray, U. B., Brown, R. L., Clark, F. C., Crittenden, E. D., De Rewal, F. J., Kniskern, W. H., Lawrence, C. K., McCann, W. R., Porter, F., and Rogers, D. A.

Ato, S., separation and determination of gallium. V. Separation of gallium from beryllium, titanium, zirconium, and thorium, and determination of the

gallium thus separated, A., 952. Atroschtschenko, V. I., velocity of absorption of oxides of nitrogen, A., 166.

See also Adadurov, I. E.

494.

Atsuki, K., and Okajima, S., observations of coagulation of cellulose acetate under the ultramicroscope, A., 562.

Attapulgus Clay Co. See Russell, C. B. Atterer, M. See Schmidt, Erich. Atti, M. See Corbellini, A.

Attimonelli, R., action of ricin on the isolated heart of the rabbit, A.,

Atwell, H. V., and Gasoline Products Co., Inc., treatment of hydrocarbon oils, (P.), B., 358.

See also Standard Oil Co.

Atwell, W. J., effects of thyrotropic and adrenotropic principles on hypophysectomised amphibia, A., 1426.

Atwood, F. C., casein paints, B., 750. Atzler, E., preparing a remedy [for tumours], (P.), B., 667.
Bergmann, K., Graf, O., Kraut, H.,

Lehmann, G., and Szakáll, A., phosphates and work, A., 1548.

Aub, J. C., biochemical behaviour of lead in the body, A., 518.

See also Brues, A. M.

Aubel, C. E., Hughes, J. S., and Lienhardt, H. F., effects of low-phosphorus rations on growing pigs, A., 756. See also McCampbell, C. W.

Aubel, E., and Egami, F., deamination of alanine by bacteria, A., 113. Deamination of alanine, A., 640. Dehydrogenation in presence of nitrate, A., 10ž8.

Aubel, E. van, Hall effect in antimonytellurium and antimony-silver alloys, A., 1455.

Aubel, R. van, crystalline uraninite from Kasolo-Shinkolobwe, A., 1226.

Aubert, M., relation between the tension τ of Baeyer and the characteristic Raman frequency for cyclic hydrocarbons, A., 1448.

Clerget, P., and Duchêne, R., influence of addenda on combustion of gas oil in internal-combustion motors, B.,

Aubertin, E., and Castagnou, E., hypoglycæmic action of insulin in dogs with the pancreatic duct ligatured, and with or without secondary fatty degeneration of the liver, A., 250.

Castagnou, R., interpretation of the hypoglycamia (recovery) curve obtained after injection of insulin in the

dog, A., 1031.

Lacoste, $A_{\cdot \cdot}$, Castagnou, $E_{\cdot \cdot}$, and Saric, $R_{\cdot \cdot}$ functional and anatomical state of the endocrine pancreas, and its insulin content, in dogs subjected to prolonged fasting, A., 235.

Lacoste, A., Castagnou, R., and Saric, R., hypoglycæmic action of insulin in partial pancreatectomy in dogs, A., 1031.

Lacoste, A., and Saric, R., state of functional reactivity of the endocrine pancreatic tissue in normal dogs subjected to prolonged biquotidian injection of insulin, A., 386.

See also Lacoste, A., and Saric, R.

Aubertot, V. See Mougeot, A. Aubry, P., Thiodet, and Ribère, protein equilibrium of blood-serum in anaphylactic states, A., 355. Protein equilibrium of serum during sensitisation and serum shock, A., 874. Modifications in the protein fractions of serum during periods of rest and crisis in anaphylaxis, A., 1136. Serum-proteins during anaphylactic state [in man], A., 1283. Changes in the protein equilibrium of blood during asthma, A., 1538.

Auch, R. H., oils, fats, fatty acids, and

waxes in cosmetics, B., 750. Auden, H. A. See Distillers Co.

Audibert, E., application of hydrogenation to production of motor spirit, B., 965.

Auditorium Conditioning Corporation, conditioning of air, (P.), B., 957.

Audrieth, L. F., production of rare-earth metals by thermal decomposition of

their amalgams, A., 39. Long, A., and Edwards, R. E., fused "onium" salts as acids; reactions in

fused pyridinium hydrochloride, A., 574. Audubert, R., spectral region of emission of chemical reactions, A., 407. Emission of light by chemical reactions, A., 778. Emission of radiation by chemical reactions, A., 1215.

and Prost, M., radiation emitted in dehydration and hydration of quinine

sulphate, A., 664.

and Viktorin, O., emission of ultraviolet light during anodic oxidation

of aluminium, A., 778.

Auer, H., magnetic investigations of precipitation-hardening, A., 152. Magnetic susceptibility and change of state of hardenable aluminium-copper alloys, A., 1193.

and Gerlach, Walther, magnetic investigation of precipitation-hardening, B.,

375.

Auerbach, R., disperse gases. I. Thermodynamics and preparation, A., 425. Emulsifier, A., 583.

See also Gen. Electric Co.

Auffret, L. See Lefrou, G. Auger, P., and Grivet-Meyer, (Mme.), analysis of showers from cosmic rays by using their divergence, A., 1174.

and Rosenberg, A., analysis of corpuscular cosmic radiation under a screen of 28 m. of soil, A., 133. Properties of cosmic corpuscles of the penetrating group, A., 919.



Auger, V., molybdenum blues, A., 691. and Gallissot, (Mlle.) M., ferric ammonium carbonate, A., 441. and Ivanov, (Mlle.) N., etherates of

iodobismuthous and iodoantimonious

acids, A., 690.
August, V. G. See Gribov, B. I.

Auguste, C., Bordet-Wassermann reaction : inhibiting power of the fraction of the serum precipitated by hydrochloric acid, A., 232. Technique of Bordet-Wassermann reaction in serum freed from the fraction precipitable by hydrochloric acid, A., 753.

Augusti, S., formation of mercuriammonium salts from mercuriammonium nitrate by double decomposition. II. Mercuriammonium chlorate, A., 574. Systematic microchemical identification of mineral pigments. III. Yellow pigments. IV. Red, brown, and black pigments, B., 559, 702.

Augustin, H. See Bünger, H.

Augustine, C. E. See Kreisinger, H. Aujaleu, E., Colombies, F. H., and Montariol, A., determination of blood-oxalic acid in cancer, A., 231.

Auld, B. H., apparatus for sterilising liquids, (P.), B., 1073.

Auld, S. J. M., characteristics of solvent-

refined motor oils, B., 308.

Ault, R. G., Hirst, E. L., and Morton, R. A., absorption spectra in relation to constitution of derivatives of isatin and carbostyril, A., 83.

Aument, H. C., impervious [paper] container, (P.), B., 982.

Aumüller, W. See Fromherz, H. Aunis, G. See Muraour, H.

Auribault, C., pickling and polishing of corrosion-resistant steels, B., 547.

Aurisicchio, G., and De Nito, G., detoxic-

ation of cyanides, A., 1023.

Anschkap, J., simple apparatus for measuring light absorption, A., 1480. Determination of sulphuric acid in leather, B., 1222.

Aushbekovitsch, A. E., specific heat of hydrates of magnesium chloride, A., 799. Austen, C. R., [uses of] rubber in the gas industry, B., 31.

Austen, W., chemical action of water and

its effect on water-pipes and their linings, B., 548. Effect of cleaning mains on

the water supply of Breslau, B., 1070.

Austerweil, G., mechanism of base exchange, A., 1457. Laboratory use of wetting and emulsifying agents, B., 631. and Kourskine, B., lead chlorocarbonate

and its applications as intermediary in preparation of alkalinitrates, A., 810. Application of lead chlorocarbonate to de-salting of brackish waters, B., 670.

Austin, C. R., high-temperature properties of nickel-cobalt-iron-base age-hardening

alloys. I., B., 839.

Austin, G. W., effect of molten solder on

stressed materials, B., 237.

Austin, J. A., and Jensen-Salsbery Labs., stabilisation of calcium gluconate solu-

tions, (P.), B., 620.

Austin, J. B., integrated form of the equation for calculating change of equilibrium with temperature, A., 290. Use of penetrating radiations in measurement of porosity of refractory brick, B., 409.

and Pierce, R. H. H., jun., linear thermal expansion of sodium tungstate between

20° and 600°, A., 21.

Austin, J. B. Sec also Pierce, R. H. H., jun. Austin, J. H. See Drabkin, D. L.

Austin, M. M., and Fansteel Products Co., hard tantalum. (P.), B., 1048.

Austin, W. E., sec. alkylresorcinols, (P.), B., 443. Preparation of chlorosec. alkylresorcinols, (P.), B., 443. Chlorodihydroxyalkylbenzenes, (P.). B., 1196. and Redro Labs., unsymmetrical dialkyl or alkylaralkyl derivatives of resorcinol, (P.), B., 875.

Austoni, M., determination of alkaloids in

horned rye, B., 571.

Auwers, K. von, 1-benzyl-Δ¹-cyclohexene and benzylidenecyclohexane, A., 195. Constitution of Knoevenagel's "acetone-anil," A., 1522.

and Ludewig, H., isomerisation of acyl-

ated pyrazolines, A., 1522.

Auwers, O. von, magnetic anisotropy of polycrystalline technical materials. B., 839. Avdalian, D., exothermic transformations of aluminium oxide, A., 689.

Averbuch, B. D. See Tschufarov, G. I. Averbuch, S. See Peskov, N.

Averko-Antonovich. L. T. See Kluchevich. A. S.

Avetisjan, A. D. See Yaitschnikov. I. S. Avice, R., changes in polarisation of raw sugars during warehousing, B., 1063.

Avon India Rubber Co., Ltd., and Mackay, J. G., procuring direct adhesion of soft rubber to metal, (P.), B., 244.

Avrameuco, E. I., glasses for low-voltage insulators on high-frequency communic-

ation lines, B., 20.
Avtonomova, E. S. See Klimentova, A. A. Awaloff, J., methods of making vodka,

liqueurs, and brandy, B., 855.

Awano, S. See Tanaka, Keikichi.

Awbery, J. H., temperature rise in material of which thermal properties vary with temperature, A., 278.

and Griffiths, E., viscosities of liquid refrigerants, A., 788.

Awe, W., recognition of papaverines by a colour reaction with acetic anhydride and sulphuric acid, A., 494. Determination of free and combined iodine in [pharmaceutical] iodine preparations, B., 1016. Volumetric determination of zinc oxide in zinc ointment by saturation analysis, B., 1127. See also Feist, K.

Awender, H., Thoma, A., and Tombs, D. M., paths of electrons in magnetrons when space-charge effects are considered. I., A., 4, 266.

Axelrod, M. See Damerell, V. R. Axmacher, F., mechanism and course of chemotherapeutic action, A., 375. Colour reaction of histamine and complex salts of heavy metals with methylglyoxaline, A., 744. and Ludwig, H., action of aromatic sul-

phonic acids on carboxylase, A., 1023. Axtmayer, J.H. See Asenjo, C.F.

Aydelotte, C. J. See Du Pont de Nemours

& Co., E. I. Ayerst, D. B. See Allen, H. I.

Ayi, S., effect of superphosphate on growth of rice, B., 659.

Ayles, W. F., machines for and methods

of staking and softening leather, (P.), B., 1114.

Ayliffe, S. H. See Wood, R. G. Ayling, E. E. See Hinkel, L. E.

Aylmer, A. E., Finch, G. I., and Fordham, S., diffraction of electrons by amalgam films, A., 784.

Aylward, F. X., and Blackwood, J. H., fasting and realimentation in the ruminant. I. Effect of food and fasting on certain blood constituents. II. Calcium and phosphorus metabolism during fasting, and during realimentation followed by fasting, A., 1543.

Ayres, A. U. See Sharples Specialty Co. Ayres, E., and Gulf Refining Co., gum-inhibited motor fuels, (P.), B., 87.

Smith, Herschel G., and Gulf Refining Co., hydrocarbon products [lubricants], (P.), B., 731. Treatment of lubricating oils, (P.), B., 731.

Ayres, G. B., and Lee, M., determination of nitrogen partition in tissues, A., 1308. Ayres, G. H., effect of heat treatment on hydrous chromic oxide sols, A., 286.

Ayyar, N. K., effect of progressive ripening of fodders on mineral nutrition of cattle. II. Urine characteristics, A., 628.

Ayyar, P. R., steric factor in organic chemical reactions. I. Influence of esterification on mode of addition of bromine

to β-phenylpropiolic acid, A., 70.

Ayyar, T. V. S., and Anantanarayanan,
K. P., tobacco decoction as economic spray material for paddy thrips, B., 386. Azarch, Z. I. See Razuvaiev, G. A. Azérad, E. See Baudouin, A.

B.

Baade, W., and Zwicky, F., super-Novae and cosmic rays, A., 265.

Baader, A., regeneration of mineral oils, B., 966.

Baas-Becking, L. G. M. See De Jong, H. G. B.

Baba, A. See Hatta, S. Baba, T. See Ishikawa, Tetsuya.

Babaeva, A. V., and Daniluschkina, E. I., solubility of nickel sulphate in mixtures of sulphuric acid and water, A., 560.

See also Tarasenkov, D. N.

Babakina, V. G., and Kutakova, K. S., prevention of "rust spots" on calf skins and large hides, B., 382. Babbitt, H. E., dosing of sewage tanks with

ground garbage, B., 573.

Babbitt, J. D., and Mendelssohn, K., resistance thermometry below 10° abs., A., 23.

Babcock. D. E., chemical nature of tetany, A., 1142.

Babcock, G. S. See Eastman Kodak Co. Babcock, H. D., Moore, C. E., and Hoge, W. P., scale of wave-lengths in the infra-red solar spectrum, A., 770. Seo also Russell, H. N.

Babcock, S. H. See Kunz, J.

Babcock & Wilcox, Ltd., and Trainer, J. E., welding of metals, (P.), B., 939.

See also Hodge, J. C., and Trainer, J. E. Babinet, A., nitriding of iron and steel, B., 1043.

and Nitricastiron Corp., surface-hardened cast iron article of manufacture, (P.), B., 152.

Babitschev, I. A. See Prokoschev, S. M.
Babitscheva, V. N., Redina, L. V., Belousskaja, F. M., Buikova, S. V., and
Sidorov, V. A., determination of condition (fresh or spoiled) of meat or fish pastry, B., 393.

See also Musserski, N. N.

Babkin, B. P., blood-sugar concentration and external secretion of the pancreatic

gland, A., 750.

Babko, A. K., influence of $p_{\rm H}$ on oxidation and reduction reactions, A., 38. Solubility of precipitates in acids, Λ ., 41, 1062. Aluminium alizarinate; colorimetric determination of aluminium, A., 696. Potentiometric determination of tungsten, A., 1083.

Babkov, S. I. See Golubev, I. F. Babler, B. J. See Hurd, L. C., and

Schwoegler, E.J.

Babler, E. See West & Co., Ltd., A.

Babor, K., jun. See Bureš, E.
Babor, water, A., 429.

Baca, O. See Parera, J. A.

Baccaredda, M., pyroantimonates of bivalent metals: Ca₂Sb₂O₇, Cd₂Sb₂O₇, Pb₂Sb₂O₇, A., 1476.

See also Natta, G.

Bach, D., evolution of dehydrogenases of Staphylococcus aureus during growth, A., 114. Hydrogen donators for A., 114. Staphylococcus aureus, Donators and acceptors of hydrogen for Streptoccocus hæmolyticus, A., 384. Hydrogen donators for pneumococcus, A., 1027. Hydrogen donators for Proleus vulgaris, A., 1155. Development of the dehydrogenases of Proteus vulgaris, A., 1155.

and Fournier, J., assimilation of oxalic acid by Aspergillus niger, A., 382, 523. and Lambert, J., hydrogen donators for Friedlander's pneumobacillus, A., 1561. Hydrogen donators for B. prodigiosus,

A., 1561.

Bach, F., and Berr, A., heart treatment with the pure glucoside of Scilla, A., 1294. Bach, H., biological purification of water, B., 670.

 Bach, N., and Balaschova, N., positive platinum sols, A., 678. Electrochemistry of platinum sols. I. Preparation of the sols, A., 1067. Bach, S. See Reiger, R.

Bacharach, A. L., chemistry of calciferol and vitamin-D₃, A., 1431.

Drummond, J. C., and Morton, R. A., determination of vitamin-A, A., 390. Bacharach, G., and Weinstein, R., dif-

ferential reduction of the nitro-group by means of glucose, A., 843.

Bacheldor, W.H. See Standard Oil Co. Bachelet, M., extraction of uranium Xby ferric hydroxide precipitation, A., 1080.

Bacher, I. See Larson, C. Bacher, R. F., and Goudsmit, S., electrostatic interaction in atoms, A., 14.

Bachhuber, E. A. See Herrin, R. C. Bachler, G., and Rotationsfeuerungs-patentges. m.b.H., obtaining complete combustion in furnaces, boilers, etc., (P.), B., 8.

Bachman, C. O., grinding [wood] pulp for high-speed paper machines, B., 829.
Bachman, G. B., acetylenes. II. Phar-

macological properties of the acetylenic linking, A., 188. See also Hall, H. J., Miller, H. F., and

Sobin, B.

Bachman, P. W. See Gen. Chem. Co.
Bachman, W. S., chemical feeder [stable calcium hypochlorite pellets], (P.), B., 1037.

Bachmann, G. See Haldi, J.

Bachmann, W., and Ogait, anaërobic surface cultures. II. Gaseous products of metabolism of organisms (yeast, Staphylococcus aureus. B. coli, B. prodigiosum): aldehyde content and bactericidal action

at a distance, A., 384.
Bachmann, W. E., and Boatner, C. H., preparation of amino- and halogeno-

phenanthrenes, A., 836. and Chu, E. J. H., pinacol-pinacolin rearrangement. VIII. Rearrangement of 7:8-dihydroxy-7:8-diarylacenaphthenes, A., 1105.

Cook, J. W., Hewett, C. L., and Iball, J., synthesis of compounds related to sterols, bile acids, and cestrus-producing hormones. X. Ruzicka's hydrocarbon "C₂₁H₁₆" from cholic acid, A., 326.

and Struve, W. S., synthesis of phenderivatives. anthrene pionylphenanthrenes, A., 1380.

and Wiselogle, F. Y., reaction of sodium with triphenylmethyl chloride and triphenylmethyl in organic solvents, A., 1497.

Bachmetev, E. F., X-ray analysis of the homogeneous phase in the system Mg-Ni, A., 152, 1061. Heat-treatment of cold-rolled duralumin, B., 745.

and Golovtschiner, J. M., is an intermetallic homogeneous phase formed in

the system Mg-Mn? A., 152. Sevastianov, N. G., and Kotov, N. I., X-ray analysis of crystal formation in the ternary system Cu-Al-Ti, A., 152. See also Kosolapov, G. F.

Bachromeev, I. R., increase of cell permeability by mitogenetic irradiation; chemical detection of mitogenetic effect, A., 371.

and Pavlova, L. N., redistribution of calcium and potassium in blood and

muscles, A., 632.

Bachstez, M., and Cavallini, G., South American drugs. I. Bixol, a now alcohol from the oil of Rixa orellana. II. Chemical composition of Canavalia obtusifolia, A., 123.

Bachulin, M. D., action of lime, magnesium, and copper on high-peat soils, B., 949.

Back. E. A., and Cotton, R. T., industrial fumigation against insects, B., 573. Backeberg, O. G., interaction between aro-

matic diamines and ethyl acetoacetate, A., 64.

Backer, H. J., introduction of chlorine into nitromethanedisulphonic acid, A., 53. Plano-radiate compounds. I. Hexahydroxymethylbenzene and its derivatives. II. Hexathiomethylbenzene and its thioethers. III. Hexasulphones of hexamethylbenzene. Hexa(-chloro- and -iodo-methyl) benzene, A., 68, 715, 1100. Planoradiate compounds, A., 272. Bromonitromethionic acid, A., 1486.

and Benninga, N., disulphoacetic acid, A., 824. $a\beta$ -, $a\gamma$ -, $\beta\gamma$ -Disulphobutyric acids, A., 1094.

and Dijkin, G., radiate ethers of pentaerythritol, A., 704.

and Mulder, C. H. K., arsinocarboxylic acids, A., 830. Resolution of a-arsino-carboxylic acids, A., 1097.

Strating, J., and Zuithoff, A. J., structure of the isomeride of isoprenesulphone, A., 1092.

and Terpstra, P., bromomethanetrisul-phonates, A., 1092.

Backer, H. J., and Veen, D. van der, α and β -sulphovaleric acids with a branched chain, A., 1489.

See also Bolt, C.C., and Strating, J.Backhus, H. S. See Sage, B. H.

Backlund, N., centrifuges in the minera oil industry, B., 532.

Bačkovský, J. M., method for obtaining soft X-rays in gases and particularly the K spectrum of neon, A., 917.

and Dolejšek, V., occurrence of reversed absorption edges of long wave-lengths of X-rays, A., 3. L-Emission spectrum of argon, A., 3. Ultra-soft X-ray absorption edges from emulsion and sensitisers of photographic plates, A., 656.

Backus, A. A. See Metzger, F. J.

Bacon, L. R., measurement of absolute viscosity by the falling-sphere method,

Bacon, R. C., laws governing cation-exchanging properties of a precipitated aluminium silicate, A., 1195.

Bacon, R. G. R., and Ruzicka, L., l-pimaric

acid, A., 996.

Bacon, R. R. See Shell Development Co. Bacon, T. S., and Lone Star Gas Co., purification of gas, (P.), B., 1079. See also Thompson, C. L.

Bacq, Z. M., sensitising action of antioxygenic phenols after post-gangliary enervation of the nictitating membrane, A., 890.

See also Dulière, W. L., and Mathièu, F.

Badami, J. S., hyperfine structure and gross structure analysis of the spectrum of doubly-ionised antimony, A., 2. Magnetic moment of the nucleus and hyperfine structures in the spectrum of doubly ionised antimony; structure of the arc line 3723, A., 654.

Baddeley, G., and Bennett, G. M., velocities of reaction of β -arylethyl chlorides with potassium iodide, A., 165.

Bennett, G. M., Glasstone, S., and Jones, B., polar effects of the halogens in aromatic combination, A., 165.

and Kenner, J., cracking process; pyrolytic transformation of p-xylene and m-xylene, A., 714.

Bade, O., mould in wood pulp, B., 538. Baden, M. W., apparatus for use in testing

solutions [laboratory evaporator], (P.), B., 81.

Badenhuizen, W. P., jun., physical chemistry of starch and bread making. XXV. Block structure of starch grains, B., 564.

Badenoch, E., and Morris, N., eccliac disease. I. Carbohydrate metabolism, A., 1539.

Badenski, G. See Ciuca, M. Bader, M. J. G., azo-dyes, (P.), B., 687.

Badger, A. E. See Corning Glass Works, and Parmelee, C. W.

Badger, L. F., and Sebrell, W. H., leprosy: effect of vitamin- B_1 -deficient diet on incubation period of rat leprosy, A., 752.

Badger, R. M., relation between internuclear distances and force constants of molecules and its application to polyatomic molecules, A., 14, 1448. Band spectrum of sulphur and statistics of the sulphur nucleus, A., 397.

and Bauer, S. H., absorption spectrum of methyl alcohol vapour in the photographic infra-red, A., 1179.

and Blair, C. M., jun., band spectrum of silicon fluoride, A., 1317.

Badger, W. L., concentration of solutions. (P.), B., 130.

See also Fragen, N.

Badilkes, S., Einhorn, E., Kudaschevitsch, V., and Sikov, V., comparative values of butter and margarine in medical nutrition, A., 238.

Badinand, A., ascorbic acid as activator of hepatic cathepsin in presence of ionised or complex-forming metals, A., 1025.

See also Arloing, F.

Bado, A. A., Kessener's process in removal of iron from ferruginous waters, B., 574.

Badoche, M., oxidation of 5:6:11-triphenylnaphthacene in the light and in the dark: the photo-oxide, $C_{36}H_{24}O_2$, A., 1500. Badstübner, W. See Kuhn, R.

Bächle, O., dispersing and stabilising agents for latex mixtures and behaviour of latex mixtures on storage, B., 111.

Bäcklin, E., and Flemberg, H., oil-drop method and the electronic charge, A.,

Bäckström, C. H. See Hägglund, E. Baehni, E. C., air-conditioning device, (P.), B., 174.

Bachren, F. See Langenbeck, W.

Baender, F. G., reclaiming used lubricating oils, (P.), B., 87, 731. Apparatus for distillation of oils and other liquids, (P.), B., 917.

Baer, A. H., and Worthington Pump & Machinery Corp., gas-condensing and separating system [for breweries], (P.), B., 758.

Bär, A. L. S., soil structure, B., 245. and Tendeloo, H. J. C., double layer of clay colloids, B., 834.

Baer, E. See Fischer, H. O. L. Bär, F. See Grundmann, C.

Baer, J. M., and Guardite Corp., fumigation, (P.), B., 574.

Baer, P., Scoz, G., and Boeri, E., insulin and body-weight. II. Variations of composition of adipose tissue in insulinised animals, A., 763.

See also Bergami, G., and Boeri, E. Bär, R., velocity of ultrasonic waves in heavy water, A., 1453.

and Walti, A., determination of Poisson's clastic constants by means of ultrasonic waves, A., 446

Bär, W., spark potential for electrolytic valve action, A., 263.

Baermann, H., vacuum in laboratory and technique, A., 447.

Baernstein, H. D., sulphur distribution in proteins. II. Combined methods for determination of cystine, methionine, and sulphates in hydriodic acid digests, A., 1282. Determination of methionine in

proteins, A., 1282.

Baernstein, M. A. See Culling, C. R.

Baertstein, B. A. See Cuning, C. R. Baert, C. G. See Offerhaus, C. Baertich, E. See Abderhalden, E. Baerts, F., and Lange, S., electrical conductivity method for examining lime, B., 692.

Baetjer, A. M., diffusion of potassium from resting skeletal muscle following a reduction in the blood supply, A., 224. Effect of potassium and calcium on contractions of mammalian skeletal muscle, A.,

Bätzner, H., retardation of hydrogen positive rays by metals, A., 263. Baeyer, H. J. von. See Bothe, W.

Baeyertz, M., oxidation of steel, B., 838. Bag, A., formation of olein, B., 648.

Bagdasarjantz, G. J., comparative biochemistry of muscle. II. Nature of phosphagen in Selachii, A., 1533. See also Rozenfeld, L. E.

Baggesgaard-Rasmussen, H., titration of weak acids and bases in water-alcohol mixtures, A., 949.

and Reimers, F., acid-base titration in alcohol-water mixtures. III. Titration of alkaloids and alkaloid salts, A., 91.

and Salomonsen, K., cultivation of the opium poppy in Denmark, B., 210.

Baglioni, A., and Console, V., insulin and experimental beri-beri in the pigeon, A., 1159.

See also Salvatori, A.
Bagnall, H. H., "tanninless" tea, B., 713.
Bagoury, M. M., action of acetone and of ketones present in diabetic blood on the

heart, A., 890.
Bahl, B. S. See Bhatnagar, S. S.
Bahlke, W. H. See Standard Oil Co. Bahr, \hat{T} . See Fischer, F.

Baibaiev, A. I., and Kargin, V. A., electrochemical properties of highly purified silica sols, A., 1067.

Baier, O. See Scheiber, J.

Baier, S., and Macnaughtan, D. J., electrodeposition of bronze, using bronze anodes, B., 151.

Bailar, J. C., jun. See Balthis, J. H., jun., and Parsons, T., jun.

Bailey, A. E., decomposition of barbiturate solutions by heat, B., 762.

Bailey, A. J., lignin in Douglas fir, B., 312, 1146. Mechano-chemical dissection of wood fibres, B., 448. Microdetermination of lignin, B., 538. Structure of the middle lamella [of wood], B., 1208.

Bailey, B. E., vitamin-A potency of liver oils from some miscellaneous Pacific Coast fishes, B., 285.

See also Brocklesby, H. N.

Bailey, C. H., and Sherwood, R. C., biochemistry of bread-making; carbohydrato sequence, B., 216.

See also Bohn, L. J., Munz, E., and Sullivan, B.

Bailey, C. R., Hale, J. B., Ingold, C. K., and Thompson, J. W., structure of benzene. IV. Infra-red absorption spectra of liquid and gaseous benzene and hexadeuterobenzene, A., 1322.

Thompson, J. W., and Hale, J. B., infrared spectra of H₂S, HDS, and D₂S, A., 776.

See also Angus, W. R.

Bailey, D. H., sampling milk, B., 759.
Bailey, D. P. See Texas Co.
Bailey, E. G., Cassidy, P. R., Hardgrove,
R. M., and Fuller Lehigh Co., grinding mill, (P.), B., 577. Pulverising mill, (P.), B., 577. Grinding mill with divided feed, (P.), B., 577.

Bailey, E. L. See McCortney, W. J. Bailey, J. R. See Bratton, A. C., jun., Parker, I., and Union Oil Co. of California. Bailey, K. C., determination of surface tension by the drop-weight method, A., 447. Mutually surface-active liquids; mixtures of sulphuric acid with nitrobenzene and with ether,

and Calcutt, W. E., inhibition of chemical reactions. VI. Influence of ether and nitrobenzene on absorption of ethylene by sulphuric acid, A., 1075.

and Hilton, J., system nitrobenzenesulphuric acid-water, A., 1456.

Bailey, L. H., and LeClerc, J. A., comparative study of bread leavened with yeast and with hydrogen peroxide, **B.,** 519.

Bailey, M. I., refractometric determination of total solids of whole eggs and of yolks, B., 121.

Bailey, R. W. See Irwin, W. H. Bailly, L. See Internat. Furnace Equipment Co.

Bailly, O., fate of carotene in the animal organism, A., 499.

and Gaumé, J., synthesis and hydrolysis of phosphoric esters derived by methylation of β -hydroxyethyl dihydrogen phosphate, A., 1092.

Bain, E. C., influence of the common alloying elements on properties of steel, B., 322.

See also Vilella, J. R.

Bain, G. W., mechanics of metasomatism, A., 1483.

Bain, J. W. See Glover, R. L.

Bainbridge, E. F., treatment of [chromium] alloys, (P.), B., 843.
Bainbridge, K. T., and Jordan, E. B.,

mass-spectrum analysis; mass spectrograph; existence of isobars of adjacent elements, A., 1172.

See also Jordan, E. B. Baines, H., direct positive or reversal

process in photography, B., 717. Baird, D., and Nichols Eng. & Res. Corp.,

drying and incineration of sewage, garbage, etc., (P.), B., 958.

Rowen, R. W., and Nichols Eng. & Res. Corp., incinerating method and apparatus [for sewage sludge], (P.), B., 958.

See also Miner, C. G.

Baird, J. L., and Baird Television, Ltd., cathode-ray tubes, (P.), B., 203. Cathoderay tubes and thermo-luminescent screens therefor, (P.), B., 378.
Baird, T., Comparative study of de-

hydration [of animal tissues], A., 535.

Baird, W. See Imperial Chem. Industries. Baird Television, Ltd. See Baird, J. L., and Banfield, A. C. Baisse, J. See Pien, J.

Baitschikov, A. G., solvents for extraction of iodine and bromine from their dilute solutions, B., 192. Baiwir, G. See Rey, M.

Bajev, A. See Engelhardt, V. A. Bak, A. See Blom, J.

Bak, B. See Billmann, E., and Jensen, K. A. Bake, L. S., effect of lead on pyrethrum extracts; deleterious effects of lead cap liners and solder in containers on pyrethrum fly sprays, B., 77. See also Du Pont de Nemours & Co.,

E. I.

Corporation, synthetic resins Bakelite suitable for manufacture of dentures, (P.), B., 464.

See also Elbel, E., Groff, F., Mills, H. P., Turkington, V. H., and Wakefield, H. F.

Bakelite Ges.m.b.H. See Elbel, Seebach, F., and Süssenguth, O.

Bakelite, Ltd., synthetic resins of the urea-formaldehyde type, (P.), B., 944. Baker, A. B., complement fixation as

related to resistance and allergy in experimental tuberculosis, A., 367.

Baker, B. L., and Johnson, G. E., effect of injections of antuitrin-S on the sexually inactive male ground squirrel, A., 900.

Baker, C. L., effect of alkaline detergents on metals; aluminium, copper, tin, and zine, B., 200.

and Philadelphia Quartz Co. of California, crystalline alkali silicate hydrates,

(P.), B., 987.
Baker, D. R., and Glick, D. P., sterilisation effects on properties of clays, B., 834. Baker, D. W. H. See Hartley, K.

Baker, E. See Brewer, F. M. Baker, E. B., and Boltz, H. A., measurement of the breakdown and currentvoltage characteristics of liquid dielectrics with direct potentials, A., 305.

Baker, E. M., calculation of countercurrent extractions, B., 128.

Baker, F. E. See Fleming, W. E. Baker, G., and Jordan, C. B., assay of aconite and stability of its preparations, B., 858.

Baker, G. L., and Kneeland, R. F., cranberry pectin properties, B., 713.

Baker, G. O., practicability of the Walkley and Black method for determining soil organic matter, B., 292.

Baker, G. W., electrolytic application of hydrobromic acid test for copper, A., 1353.

Baker, H. C. See Rubber Producers' Res. Assoc.

Baker, H. R. See Greenfield, R. E. Baker, J. C., treatment of fresh fruit,

(P.), B., 43.

Peet, G. D., and Wallace & Tiernan Co., Inc., treatment of [flowing] water

[and sewage], (P.), B., 174. and Wallace & Tiernan Products, Inc., electrolysing apparatus, (P.), B., 605.

Baker, J. R., stereophotomicrography, B., 621.

Baker, J. W., mechanism of aromatic side-chain reactions with reference to the polar effects of substituents. IV. (Addendum.) Velocity of reaction between o-nitrobenzyl bromide and VIII. Polar effects of pyridine.

halogens, A., 569, 599, 1497.
and Nathan, W. S., mechanism of aromatic side-chain reactions with reference to the polar effects of substituents. IV. Mechanism of quaternary salt formation. V. Polar effects of alkyl groups. VII. Attack at a saturated carbon atom by a charged ion, A., 195, 433.

Nathan, W. S., and Shoppee, C. W., mechanism of aromatic side-chain reactions with reference to the polar effects of substituents. VI. Effects of p-alkyl substituents on prototropy in the methyleneazomethine system, A., 195.

Baker, K. F., etiology and control of bluemould decay of apples caused by Penicillium expansum, Link, B., 904.

Baker, L. E., artificial medium for epithelial cells and fibroblasts, A., 259. Effect of ascorbic acid on proliferation of

monocytes, A., 529. Baker, L. M. See Oldham, E. W.

Baker, R. H., and Barkenbus, C., preparation of 1:4-dithiens, A., 481.

Baker, S. L., effects of β -rays from radium on the agent of the Rous sarcoma, on bacteriophage, on tetanus toxin, and on certain bacteria, antibodies, and enzymes, A., 1149.

Baker, T. T., and Dufaycolor, Ltd., toning of photographic prints, (P.), B., 621.

See also Dufaycolor, Ltd.

Baker, W., abnormal strength of 2:6dihydroxybenzoic acids, A., 469.

and Lothian, (Miss) O. M., chelation. III. Stabilisation of Kekulé forms in o-hydroxy-carbonyl compounds, A., 474.

and Smith, A. R., chelation. IV. Some properties of 2:3-dihydroxyphenyl ketones, A., 727.

Baker, W. E. B., and Stein, Hall & Co., coating composition [for paper] and its preparation, (P.), B., 1218.

Baker, W. N., comparison of viscosity of D₂O with that of H₂O, A., 674.

Baker-Bennett-Day, Inc. See T. M.

Baker & Co., Inc., production and use of new water-soluble rhodium compounds [for rhodium plating], (P.), B., 495. Dental porcelains and cements, (P.), B., 498. [Palladium-silver] alloys, (P.), B., 1213.*

See also Capillon, E. A., and Du Pont de Nemours & Co., E. I.

Baker Perkins Co., Inc. See Eppler, E. and Lasch, A.

Baker Perkins, Ltd., furnaces, (P.), B., 1071. See also Harber, L. S.

Bakewell, B., importance of sands in plasterwork, B., 1154.

Bakhsh, I., pharmaeological actions of indolyl-N-methylharmine, A., 891.

Bakina, N. P. See Ryss, J. G.

Bakonyi, S., oil, nitrocellulose, and artificial resin as binding media for paints, etc., B., 509.

Bakstad, J. R., and Jeffrey Manuf. Co., crusher, (P.), B., 1184.

Bakun, N. A., liberation of gas during coking, B., 50.

Bakunin, (Signa.) M., and Peccerillo, D., mechanism of the Perkin-Oglialoro synthesis, A., 332.

Bakuschinskaja, L. See Stadnikov, G. L. Balaba, J. T., adrenaline binding by different protein substances, lipins, and ground muscular tissue, A., 1029.

Balabucha-Popzova, V. S., Gavrilov, N. I., and Rikaleva, A. M., separation of diketopiperazines and amino-acids in protein hydrolysates by ionophoresis. 11., A., 218.

Balachovski, S., reeds as a source of vitamin-C, A., 255.

Balada, A., use of the analytical quartz lamp in the mineral oil industry, B., 83. Balakrishnan, M. R. See Rao, T. L.

Balamuth, L., Rose, F., and Quimby, S. L., δ-quartz, A., 785.

Balandin, A. A., structure theory of chemical change; complete system of doublet reactions, A., 167. Application of the structure theory of reactions to Lebedev's synthesis of butadiene from alcohol and to Rice's theory of pyrolysis, A., 167. Directions of reactions of decomposition and condensation, A., 167.

and Eidus, J., free atoms and molecular dissociation in high frequency discharges, A., 1439.

and Freidlin, L. C., interaction of sodium formate and sodium hydroxide, A., 1209.

and Rubinstein, A. M., dehydrogenation and dehydration catalysed by nickelaluminium oxide catalysts, A., 435.

See also Bork, A., and Schujkin, N. I. Balandina, E. A. See Gadaskina, N. D. Balandina, V. See Vanscheidt, A. Balandina, V. A., application of the Bespalov method to analysis of vapour-phasecracked gasolines, B., 483.

Balanesco, I. V., Oeriu, S., and Vartic, V., biochemistry of pulmonary tuberculosis during aurotherapy, A., 1016.

Balansard, J. See Mercier, F.

Balarev, D., inner adsorption in salt crystals. III. Nature of inclusion of ZnS in CuS. IV., A., 677, 1457. [with Christoforova, V.], transmission

of surface perturbations to within real crystals. V., A., 26. Balaschova, N. Sco Bach, N.

Balassa, G., sulphur content of hæmoglobin with special reference to blood-groups, A., 355̃.

and Śzántó, G., determination of vitamin-A, A., 904.

See also Simonovits. S.

Balatre, P., colorimetric determination of small quantities of bromine in presence of a large excess of chlorine, A., 1478.

Balavoine, P., gloss on rice due to mineral oil, B., 390.

Balazs, A., insecticidal fumigant for eradicating pests, particularly insects in interiors, (P.), B., 1182.

Balbi, G., and Marchesini, G., apparatus determining non-inflammability for and fireproof properties of paints and varnishes, B., 893.

See also Brambilla, M.

Balboni, G., wheat-germ oil, B., 557. Baldes, E. J. See Fox, H. M.

Baldeschwieler, E. L., Troeller, W. J., and Morgan, M. D., kauri-butanol test for solvent power, B., 88.

Baldewyns, J., determination of small quantities of carbon monoxide in air, B., 1182.

Baldracco, G., modified shake method of tannin analysis, B., 69.

Baldwin, A. W. Seo Imperial Chem. Industries.

Baldwin, C. C., and Miller, V. S., centrifugal concentrator, (P.), B., 400.

Baldwin, E., energy sources in ontogenesis. VIII. Respiratory quotient of developing gastropod eggs, A., 368.

and Needham, D. M., phosphagen in echinoid muscle and in electrical

tissue, A., 1403.

Baldwin, F. B., jun., and Doan, F. J., freezing of milk and cream. I. Effect of fat concentration on distribution of constituents in frozen and unfrozen portions of partly frozen milk and cream, B., 471.

Baldwin, I. L. See Wood, W. B. Baldwin, J. T. See Jackson, R. G. Baldwin, M. M. See Powell, S. G. Baldwin, W. A. See Magistad, O. C.

Bale, W. F., and Hodge, H. C., crystal orientation in tooth-enamel, A., 623. Lefevre, M. L., and Hodge, H. C., in-

organic structure of teeth, A., 1533.

Balie, M. P., currying [of vegetable-tanned leather]. I. Factors which affect hand- and drum-stuffing. II. Experiments on hand- and drumstuffing, B., 1058. See also Phillips, H.

Balfour, A. E., and Riley, H. L., graphite formation. I. Determination

graphite, A., 178. Riley, H. L., and Robinson, R. M., graphite formation. II. Chemical nature of graphite and amorphous carbon, A., 689.

Balgairies, E. See Muller, M.

s. S., catalyst Baliasni, ternary Cu-ZnO-Cr2O3 as a hydrogenation catalyst, A., 298.

Balichina, G. S. See Tschishikov, D. M. Balin, G. P., determination of the absorption coefficient, $K(\lambda_0)$, of the mercury resonance line, 2536.5 Å., by the resonance scattering method, A., 2.

Balinkin, I. A., adjustable support and stand for Bunsen burners, A., 1481.

Bálint, P. See Schönberger, S.

Balison, B. F., determination of dust in gases, B., 1.

Balk, R., and Krieger, P., devitrified felsito dykes from Ascutney Mountain, Ver-

mont, A., 1483. Balke, C. W., and Ramet Corp. of America, [hard tantalum boride] alloy, (P.), B., 26. Balks, R., iodine question in Westphalia, B.,

245. Iodine content of foodstuffs, B.,

Ball, A. L. See Benner, R. C.

Ball, C. G., possible relations of mineral matter in coal to time of coalification, B., 1074.

See also Thiessen, G.

Ball, E. G., oxidation-reduction. XXII. Lapachol, lomatiol, and related compounds, A., 1206. and Sadusk, J. F., jun., determination of

sodium in serum, A., 747.

Ball, M. W., Athabasca oil sands: apparent oxample of local origin of oil, A., 309.

Ball, T. R. See Cooper, S. S.
Ball, W. E., and French, O. C., sulphuric

acid for weed control, B., 807. Balla, E. See Benin, G. S.

Balla, M., aëration yeast, (P.), B., 663.

Balla, N. See Elöd, E.

Ballantine, R. J. See Emeleus, K. G. Ballard, J. W., and Wilson, E. D., barrier plane in the cuprous oxide photovoltaic

cell, A., 1321.

Ballard, S. S., Anderson, O. E., and White, H. E., fine structure and hyperfine structure of doubly-ionised beryllium, A., 1167.

See also Knauss, H. P.

Ballay, M., constitution and properties of iron-carbon-beryllium alloys, A., 151. Plastic deformation and hardness of lead, B., 375. Nickel- and chromiumplating, B., 415. Corrosion of ordinary and austenitic cast iron, B., 547. Electrolytic nickel coatings and corrosion protection, B., 551.

See also Guillet, L., and Le Thomas, A. Ballentine, E. W., and Solar Industries, Inc., apparatus for generating ions,

(P.), B., 747.
Ballif, L., and Ghersovici, I., thyrotropic hormone in non-pituitary tissues, A.,

Ballo, R., and Molnár, E., friction material for brake linings, etc., (P.), B., 480. Balloué, G. See Jacquemain, R. P.

Balls, A. K., and Hale, W. S., proteolytic enzymes of [wheat] flour, B., 344. Inhibiting discoloration of fruits and vegetables, (P.), B., 762. Enzymes [in flour], B., 1065. and Swenson, T. L., dried egg-white,

B., 1231.

Bally, J., and Dumas, O., protection and decoration of aluminium and its alloys by anodic oxidation, B., 278.

Balsbaugh, J. C., Larsen, R. G., and Lyon, D. A., glass pump for circulation of gases against moderate pressures, A., 956.

Balson, E. W., Earwicker, G. A., and Lawson, A., potentiometrio determination of polypeptides and amino-acids, A., 91.

and Lawson, A., potentiometric determination of polypeptides and amino-II. Formaldehyde titration,

A., 1006.

Baltaceano, G., and Vasiliu, C., concentration function of the gall-bladder: biliary glutathione, A., 99. Biliary sugar, A., 750. Bile secretion and a diet rich in liver, A., 754. Pancreas diet and the biliary function of the liver, A., 754. Bile-sugar, A., 1536.

Vasiliu, C., and Budeanu, T., adrenaline hyperglycamia and variations in bile-

sugar, A., 1563.

Balteanu, I. See Slatineanu, A. Baltes, J. See Kauimann, H. P.

Balthis, J. H., jun., and Bailar, J. C., jun., chromous and chromic ammines, A.,

Baltimore Club, oiticica oil; a possible substitute for tung oil, B., 648.

Baltzer, C. E. See Malloch, E. S.
Baltzer, F., diastase determination in blood. II., A., 1153.

and Brinck, J., diastase determination in blood. I. Causes of error in Ottenstein's method, A., 747.

Baly, E. C. C., adsorption and heterogeneous catalysis, A., 298.

Bamag-Meguin Akt.-Ges., production of crystallised ammonium nitrate with utilisation of the reaction heat for the evaporation of water, (P.), B., 494.

Bamann, E., and Rendlen, E., kinetics of ester hydrolysis by enzymes. VI. Relative specificity of esterases, A., 520.

and Salzer, W., phosphatases. V. Influence of buffer composition on course of activity- $p_{\rm H}$ curves of phosphocsterases. VI. Presence in animal organs of a second phosphoesterase active in acid solution, A., 1298.

Bambach, K., and Rider, T. H., determination of alcohol in pharmaceutical liquids. I. U.S.P. X and XI methods, B., 857.

Bamberg, K., active and passive plant nutrients in soil and their determination, B., 949.

Bamberger, P., and Wendt, L., influencing of diphtheric circulation weakness by cortical hormone and vitamin-C, A., 883. Bamdass-Schemjakina, E. M. Sce Kanev-

skaja, S.J.

Bamford, K. F., and Campbell, W. G., determination of lignin in analysis of woods, B., 456.

and Van Rest, E. D., relationship between chemical composition and mechanical strength in wood of English ash (Frazinus excelsior, Linn.), B., 1154.

Bamford, T. G. See Rollason, E. C. Ban, 1., composition and changes in blood and spinal fluid in epilepsy. I., A., 1540. Ban, Y., recent development of the lowtemperature carbonisation industry in Japan, B., 772.

Bane, H., painting on bitumen, B., 942. Bancelin, J., and Crimail, Y., inhibitors of corrosion of iron by acids, B., 236.

Banchetti, A., variations of physical properties of some liquids in the neighbourhood of the m.p., A., 673. Reaction isotherm and its deduction by means of the equilibrium box, A., 1207.

A., Banchettl, viscosity of aqueous solutions. III. Calculation of viscosity of mixed solutions, A., 1331. Viscosities and densities of dilute aqueous solutions of weak electrolytes (o-nitrobenzoio acid), A., 1336. Influence of addition of salts on the water-phenol system, A., 1456. Banck, W. See Esser, H.

Bancroft, F. E., and Assoc. Electrical Industries, apparatus for degassing of liquids, (P.), B., 130.

Bancroft, F. W. See Chargaff, E.

Bancroft, W. D., solute as liquid, A., 25.

Phase rule in colloid chemistry, A., 288. and Magoffin, J. E., energy levels in electrochemistry, A., 293.

and Porter, J. D., oxide film on passive

iron, A., 293.

Band, W., transition in aluminium at 79°, A., 416.

and Hsü, Y. K., thermomagnetic properties of nickel. II., A., 277. See also Ch'en, J. L., and Shang-Yi, C.

Bandemer, S. L., and Schaible, P. J., microdetermination of ammonia-nitrogen in eggs, B., 810. Bandoni, A.J. Sco Marenzi, A.D.

Bandopadhyaya, G. B., and Maitra, A. T., absorption of soft X-rays in aluminium,

Bandow, F., and Klaus, E. J., porphyringelatin phosphorescence, A., 346.

Bandte, G., lubricating oil refining with selective solvents, B., 1077.

Banerjee, B. See Basu, U.

Banerjee, B. N., p_H and preservation of mangoes, B., 169. Vitamin-A assay of ghee. III. Storage of ghee and vitamins, B., 904.

Banerjee, J. K. See Raychoudhury, S. Banerjee, P. C., vanadium sulphate as a reducing agent. II. Determination of chlorates, nitrates, and persulphates, A.,

Banerjee, S., and Sen, H. K., effect of ultra-violet light on enzymic reactions. II. Pepsin, A., 518.

See also Krishnan, K. S. Banerjee, T. See Ghosh, J. C. Banerji, D. K. See Mitter, P. C. Banerji, S. N. See Ghosh, S.

Banfi, R., Lida, E., and Marenzi, A. D., hourly constancy of phenolæmia in man in normal and pathological states, A., 357.

and Marenzi, A. D., determination of phenols in blood and urine, A., 259. See also Marenzi, A. D.

Banfield, A. C., and Baird Television, Ltd., photographic developers, (P.), B., 1236.

Banfield, F. H., electrical resistance of pork and bacon. 1. Measurement, B., 73.

and Callow, $E.\ H.$, electrical resistance of pork and bacon. II. Electrical resistance of salt in solutions, gels, minced pork and bacon. III. Penetration of salt into muscular tissue during curing, B., 73.

Bangham, D. H. See Tourky, A. R.

Banks, B. M. See Fine, J.

Banks, F. R., effect of lead tetraethyl [in fuel], B., 728.
Banks, H. P. See Davidson, G.

Banks, W. H., jun., Graham, W. A., and Macallen Co., mica insulator, (P.), B.,

Bann, B., Heilbron, I. M., and Spring, F. S., sterol group. XXVI. 7-Methylenecholesterol, A., 1376.

Bannister, C. O., and Rigby, R., influence of light on electrode potential and corrosion phenomena of non-ferrous metals, A., 682. Influence of light on the electrode potential and corrosion phenomena of mild steel, B., 697.

Bannister, F. A., preservation of pyrite

and marcasite, A., 449.

[with Hey, M. H., and Bernal, J. D.], ettringite from Scawt Hill, Co. Antrim, A., 818.

See also Hey, M. H.

Bannister, L. C., testing of electrodeposited coatings, B., 152.

See also Imperial Chem. Industries.

Bannister, W. J., and Commercial Solvents Corp., gum inhibitor for motor fuel, (P.),

Banov, A. V., absorption spectrum of SnI4 vapour, A., 134.

Bansen, H., metallurgical problems and possibility of their adjustment to the raw-materials situation, B., 410.

Banthien, H. See Jander, G.

Bányay, J., centrifuge for separating fine particles of solids from liquids, (P.), B., 816. Separating a mixture of liquids vacuum distillation, (P.), B., 1024.

Baptist, F. See Grisard, J.

Baptista, A. M., inactivation of adrenaline by acetaldehyde verified on several plain-muscle organs, A., 116. See also Rico, $J. \tilde{T}$.

Baptiste, E. C. D. See Gregory, F. G. Baqi, A. See Bates, L. F.

Bar, (Mlle.) D. See Lespagnol, A.
Barabanov, V. P. See Plotnikov, V. A.
Baraboschkin, N. N., and Gaev, A. I.,
treatment of electrolytic [copper] sludgo

at Nishnekuishtuimsk plant, B., 201.

Barac, G., state of phenol added to blood, A., 92. Spectrographic determination of phenol in different media, A., 126. Spectrographic determination of phenol added to urine, A., 503. Fate of phenol after intravenous injection in the dog, A., 887.

and Lambrechts, A., spectrographic determination of phenol in tissue, A.,

Baranajev, M. K. See Skljarenko, S. I. Baranov, P. A., improvement of superphosphate, B., 190.

and Ruzanov, P. A., physical and chemical properties of superphosphate in connexion with drying, B., 190.

Baranowski, T. See Ostern, P.

Baraschkov, J. A., and Velikovskaja,

E. M., preparing perfumery oil from Grozni paraffin filtrate, B., 395.

Baratte, \bar{A} . See Giroud, A.

Barattini, A., galvanostegy in the service of metallurgy; electrolytic tinning as protection against nitride hardening, B., 551. Nickel anodes, B., 939 Barban, M. L. See Lecog, R.

Barbas, W.C. See Sjollema, B.

Barbe, M. See Borghi, M.

Barber, C., ash of bacteria (Vibrio choleræ), A., 1561.

Barber, C. L., effect of impurities on corrosion-resistance of solder, B., 697.

Barber, C. T., effects of heat on the optical orientation of plagioclase felspars, A.,

Barber, F.G., and Peterson, F.G., variables in the sheet-making operation [for pulp evaluation], B., 925.

Barber, H. H., blood-serum-lipins in cancer and other cases. I. Mean mol. wt. of the free and combined acids, A., 1136.

and Burrows, R. B., production of free sulphur from l-cystine by a soil

bacterium, A., 760. Barber Asphalt Co. See Smith, P. R.

Barbet, E. A., direct distillation and rectification of wines with double effect of the heating steam, (P.), B., 1174.

Barbier, D., Chalonge, D., and Vassy, E., reduced thickness of the atmospheric ozone [layer] during Polar winter, A., 48. Ozone content of the lower layers of the atmosphere during winter at Abisko (Swedish Lapland), A., 957.

See also Arnulf, A.

Barbier, E. See De Hoffmann, C. Barbier, G., potassium, calcium, and magnesium nutrition of plants, B., 114. Barbier, H., butyleymenes and their nitro-derivatives, A., 196.

Barbière, J., purification of trinitrotoluene by sodium sulphite, B., 732.

Barbieri, N. A., fixation of atmospheric nitrogen by root nodules of leguminous

plants, B., 515.

Barbos, O., economic possibilities of the Poços de Caldas plateau, B., 1209.

Barbour, F. A. See Wright, C. I. Barbour, H. G. See Gilman, A.

Barbudo, J. See Collazo, J. A.

Barbulescu, N., dipole theory of solutions, A., 150.

Barch, W. E., attempted preparation of vanilloylformic acid, A., 205.

Barchewitz, P., application of a simplified model of the Jamin polarisation interferometer to the study of absorption, A., 543.

Barclay, G. See Inman, O. L.

Barco, P., and Pastorino, S. L., resection of the small intestine, A., 622.

Bărdeanu, A. See Ionescu, C. N. Bardeen, J., theory of the work function. II. Surface double layer, A., 770.

Bardenheuer, P., and Brauns, E., equilibrium between iron and nickel and their silicates saturated with silicic acid, A., 1070.

Bardhan, J. C., synthesis of hexahydrophenanthrene derivatives, A., 1511. Bardhan, T. P. See Chowdhury, J. K.

Bardos, G. See Cambier, P. Bardsley, J. W., practice and prospects of the cleaning industry: problems in laundering, B., 590.

Bardt, H., hardening of iron and steel, (P.), B., 238.

Bare, M. K. See Claxton, E.

Bareford, C.F., nature of luminous streamers from the condensed spark in vacuo,

Bareuther, A. See Nonnenbruch, W. Bargen, J. A., Horton, B. T., and Osterberg, A. E., chemotherapy of cancer.

Lead, A., 882. Barger, G., Bergel, F., and Todd, A. R., thiochrome from vitamin- B_1 (antineurin), A., 215.

and Blackie, J. J., alkaloids of Senecio. II. Senecionine and squalidine, A.,

and Fraenkel-Conrat, H. L., alkaloids from Solanum pseudocapsicum, L.,

Bargi, L., lipin exchange in the postencephalitic syndrome, A., 1141.

Bargilliat, A., white alloys in printing, B., 889.

Bargioni, G., new soluble derivative of caffeino, A., 345.

Bargmann, V., hydrogen atoms, A., 667.

Bargues, M. A. See Piña de Rubies, S. Barham, H. N., and Smits, B. L., production of kojio acid from xylose by Aspergillus flavus, A., 897.

Bari, S. von, characteristics of tinctures produced by six different methods after storage for one year, B., 123. Nitro-glycerol content of 0.001-g. tablets prepared by different methods, B., 170. Production of extracts by means of fermentation processes, B., 812.

Baric, L., disthene (cyanite) from Prilepec in the Selecka mountains, A., 817.

Baril, O. L., and Megrdichian, G. A., identification of phenolic ethers as pierates, A., 1245.

See also Underwood, H. W., jun.

Baril, R., step-photometric determination of manganese in drinking and washing waters, B., 46.

Barillaro, A. See Bellucci, L. Barillet, F., effect of naphthalene-2-sulphonic acid on crystallisation of copper

sulphate pentahydrate, A., 668.
arkan, G., iron. IX. Catalase and "readily eliminated" iron of blood. X. Acid-soluble iron of plasma, A., 109, 747. Optical properties of acidified solutions of O₂- and CO-hæmoglobin in blood, A., 355.

Barkas, W. See Kennedy, R. J.

Barkas, W. W., wood-water relationships.

I. Molecular sorption and capillary retention of water by Sitka spruce wood. Fibre saturation point of beech wood, B., 321, 837.

Barkenbus, C. See Baker, R. H. Barker, C. T. See Rhodes, E. O. Barker, E. F., and Migeotte, M. V., low-

frequency double vibrations of the deuteroammonias, A., 1179.

and Sleator, W. W., infra-red spectrum of heavy water, A., 9. See also Ginsburg, N., and Migeotte,

M. V.Barker, G. See Underwood, H. W., jun.

Barker, H. A., metabolism of the colourless alga, Prototheca zopfii, Krüger, A., 908. Fermentation of dibasic C₄ acids by Aerobacter aërogenes, A., 1027. Oxidative metabolism of the colourless alga, Prototheca zopfii, A., 1433.

Barker, J., plant respiration. VI. Relation of respiration of potatoes to concentration of sugars and to accumulation of a depressant at low temperatures. (iii) Relation of respiration to concentration of sucrose, A., 649.

Barker, J. O., and Sweets Labs., plastic composition for dolls' heads, (P.), B.,

1219.

Barker, L. M., Ralston, O. C., and United Verde Copper Co., froth control in ore

flotation, (P.), B., 154.

Barker, S. B., effects of increased metabolism on the ketone body excretion of departereatised dogs, A., 1545.

Fazikas, J. F., and Himwich, H. E. metabolic aspects of thyroid-adrenal inter-relationship, A., 1426.

Barker, S. G., chemical-engineering problems in relation to the coarser textile fibres: jute, coir, and sisal, B., 734.

Barker, S. W. See Lustrafil, Ltd.

Barker, W., apparatus for separating dirt from coal and for other analogous uses, (P.), B., 816, 1023.

Barkworth, H., technique of Van Oijen's (modified) test [for bacterial content of

milk], B., 904.

Barlamov, M. L., utilisation of intermediate products of extraction of vanadium from ores, concentrates, and slags for preparation of vanadium catalysts. II. Utilisation of alkaline extracts titanomagnetite metallurgical slag, B., 316.

Barlot, J., hydrogenation of bituminous shales at ordinary pressures, B., 178.

Barlow, E.J. See Pettingill, C. Barlow, H.W. See Kline, E.

Barlow, O. W., [with Beams, A. J., and Goldblatt, H.], pharmacology of ethyl alcohol. I. Comparison of grain and alcohol. I. Comparison of grain and alcohol. synthetic alcohols. II. Correlation of local irritant, anæsthetic, and toxic effects of three potable whiskies with their alcohol content, A., 515.

See also Jones, $J.\ L.$

Barlow-Whitney, Ltd. See Whitney, C. L. Barmakov, N. E. See Tschernoshukov, N.I.

Barmen, G. B., Meyer-Gaus, K., and Amer. Bemberg Corp., artificial silk, etc., (P.), B., 231.

Barmore, M. A., influence of various factors including altitude on production of angel food cake, B., 390. Influence of chemical and physical factors on egg-

white foams, B., 759.

Barnard, A. E., and U.S. Rubber Co., rubber articles, (P.), B., 1113.

Barnard, K. H., Kane, H. F., and Pacific Mills, preventing tarnishing of silver-ware, (P.), B., 416.

Barnbeck, H. See Lettré, H. Barnes, B. O. See McLean, F. C.

Barnes, E. C., dust determinations, B., 478. and Penney, G. W., electrostatic dust count sampler, A., 582.

Barnes, E. E. See Salter, R. M.

Barnes, G. W., dyeing of half-wool materials containing [white] acetate rayon effect threads, B., 271. Barnes, J. B. See Universal Oil Products

Barnes, L. L., molecular ions from heated salts of some of the alkali metals, A.,

Barnes, M. E., attainable standards in the bacterial counts of raw and pasteurised milk, B., 759.

Barnes, R. B., infra-red spectra and organic chemistry, A., 1049.

and Bonner, L. G., Christiansen filter effect in the infra-red, A., 776.

and Brattain, R. R., near infra-red spectrum of MgO, A., 1049.

Barnes, R. H., and MacKay, E. M., maltasc activity of blood-serum of various species, A., 1418.

See also MacKay, E. M.Barnes, R. J. See Stephen, R. A.Barnes, R. P., and Lewis, R. E., action of

ethyl hydrogen peroxide on a-diketones, A., 991.

and Payton, N. F., preparation and properties of o-bromophenyl benzyl diketone; methylation of a-diketones, A., 1110.

See also Blatt, A.H.

Barnes, T. C., salt requirements and space orientation of the littoral isopod Ligia in Bermuda, A., 105.

Barnes, W. H., structure of ice, A., 275. Evidence for the complete dissociation of salts at all concentrations in aqueous

solutions, A., 1463.
and Hampton, W. F., variable-temperature X-ray powder camera, A., 45.
X-Ray method for study of "bound water" in hydrophilic colloids at low temperatures, A., 158. X-Ray powder camera for specimens at various known temperatures, A., 181.

and Ross, S., diffraction of X-rays by the higher polyethylene glycols and by polymerised ethylene oxides, A.,

1055.

Barnett, E. dc B., Goodway, N. F., and Lawrence, C. A., condensation of phthalie anhydride with s-octahydrophenanthrene, A., 75.

See also Imperial Chem. Industries.

Barnett, H. M., and S.M.A. Corp., aminoacids, (P.), B., 89. Flavouring materials, (P.), B., 123. Leucine, (P.), B.,

Barnett, J. See McKie, P. Barnett, J. H., jun. See Susano, C. D. Barnett, M. M. See Gilman, H.

Barnette, R. M., and Jones, H. W., cover crops and the turnover of plant nutrients in soil, B., 35. and Mowry, H., soil reaction and

azalea growth, B., 292. Barnick, M., structure of natural wol-

lastonite, A., 16.

Barnicoat, C. R., diacetyl in cold-stored butters, B., 391.

Barnitt, J. B. See Aluminum Co. of America.

Barnothy, J., and Forro, M., solar components of ultra-radiation, A., 133. Measurements of cosmic ray intensity in a deep [coal] mine, A., 1315. Absence of cosmic rays from Nova Lacertæ, A., 1316.

Barobin, S., technical evaluation of starch pulp by sieving, B., 1226.

Baroni, A., sulphide, selenide, and thioselenide of thiocyanogen, A., 946.

See also Ferrari, A., and Levi, G. R. Baroni, B., effect of insulin on the hepatic and renal lipinosis of chloroform narcosis, A., 1021.

Baroni, E., detection of heavy metals in the retina, A., 361.

and Fink, A., concentration of D₂O in natural ice. II. and III., A., 183, 699.

and Kleinau, W., nitration of phenols in chloroform, A., 1244. See also Brunner, O.

Barozzi, G. E., drying apparatus, (P.), B., 255.

Barr, E. S., and Plyler, E. K., near infrared absorption spectra of acid and basic solutions, A., 406. Reaction rates of propionic and acetic propionic anhydrides, A., 569.

See also Plyler, E. K.

Barr, F. T., and Berger, R. F., portable aradiant convection pyrometer, A., 1354.

Barr, G., logarithmic head correction in viscometry, A., 182. Motor-driven circulating pump, A., 1225. Relation between Redwood seconds and kine-matic viscosities, B., 435. Calculation of "equiviseous temperatures" of tar, B., 865.

Barr, M., and Edgar, R., alkaline decomposition of wool keratin, B., 13.

Barr, T., Heilbron, I. M., Parry, E. G., and Spring, F. S., sterol group. XXVII. Oxidation of cholesteryl hydrogen phthalate with potassium permanganate: β-7-hydroxycholesterol and tetrahydroxycholestane, A., 1505.

Heilbron, I. M., and Spring, F. S., sterol group. XXII. 3-Chloroallo-norcholanic acid and its epimeride, A., 981.

Barr & Stroud, Ltd., and French, J. W., desiccating apparatus, (P.), B., 80.
Barradas, M. G., and Best Foods, Inc.,

hydrogenation of oils, (P.), B., 942.

Barral, P., complement deviation reaction of aninsulin, A., 224. Aninsulin, A., 224.

Barrenscheen, H. K., and Fanta, H., am-glucose in the animal organism, A., 499.

and Prinz, H., reducing power of urine. II., A., 502. Melanogen and melanin, A., 1014.

Barrer, R. M., interaction of light and heavy water with aluminium carbide and calcium phosphide, A., 433. Rates of interaction of proto- and deutero-hydrogen and methane with charcoal, A., 434. Thermal decomposition of light and heavy ammonia and phosphine on tungsten, A., 435. Sorption processes on diamond and graphite. I. Reactions with hydrogen. II. Reactions of diamond with oxygen, carbon dioxide, and carbon monoxide, A., 1333.

Barret, S. See Binet, L. Barreto, A., incrustations of cellulose; lignin, B., 1034.

Barrett, C. S., slip, twinning, and cleavage in silicon ferrite (4.17% Si), A., 1328. X-Ray diffraction and fatigue of metals, B., 890. X-Ray measurement of depth of cold-work [on metals], B., 936.

Barrett, Edward P., and Barrett, W. L., preparation of flattened copper tubing

coils, A., 1085.

Barrett, Elliott P., and Taylor, J. A., flow characteristics of glasses and slags at elevated temperatures, B., 407.

Barrett, H. J. See Du Pont de Nemours & Co., E. I.

Barrett, H. M., determination of trichloroethylene in air, B., 861.

Barrett, J. F., micro-test for acetone in urine, A., 881.

and Wilson, A. T., liver-fat and blood determinations after adrenalectomy, A., 361.

Barrett, J. J. See Magnavox Co.

Barrett, J. W., and Linstead, R. P., fused carbon rings. X. Fundamental properties of 0:3:3-dicyclooctane ring, A., 831.

Barrett, M., foundry parting powder, B.,

Barrett, W. L. See Barrett, Edward P. Barrett Co., distillation of tars and tarry oils containing tar acids, (P.), B., 777. Distillation of tar and similar hydrocarbon oils [for recovery of tar acids],

(P.), B., 1031. and Bergeim, F. H., composition, (P.), B., 705. F. H., rubber[-tar]

and Cowdery, A. B., rubber compounding, (P.), B., 609.

Cowdery, A. B., and Bulifant, T. A., rubber compounding, (P.), B., 382. and Dickson, J. V. E., coal-tar oil and pitch, (P.), B., 533.

Barrett Co., and Emberg, G., saturation of fibrous conduits, (P.), B., 689.

and Engel, K. H., purification of phenols, P.), B., 824. Paracoumarone resins, (P.), B., 1219.

Hagens, J., Rosenstein, L., and Hirsch-kind, W., dicalcium phosphate and ammonium sulphate, (P.), B., 18.

and Hartwig, C. E., purification of tar acids, (P.), B., 53, 136. Improving odour and colour of tar acids, (P.), B., 868.

and Harvey, E. W., treatment of liquids with ammonia, (P.), B., 1037.

and McCloskey, \acute{G} . \acute{E} ., distillation of tar, (P.), B., 403.

and Meigs, J. V., distillation of tar, (P.), B., 730.

and Miller, S. P., recovery of tar acids, etc., (P.), B., 583. Operation of coal-distillation plants, (P.), B., 628. Dehydrating and distilling tar, (P.), B., 629. Distillation of tar, (P.), B., 629. Saturation of absorbent conduits, (P.), B., 689. Saturation of fibrous conduits, (P.), B., 689. Cutting back pitch in two stages, (P.), B., 730. Purification of organic solids [anthracene, etc.], (P.), B., 874.

and Reeve, C. S., coloured caulking cement, (P.), B., 596.

Barrett & Co., and Schubert, A., [transfer printing] ink, (P.), B., 943.

Barrick, L. D., Drake, G. W., and Lochte, H. L., parachor and molecular refraction of hydrazine and [its] aliphatic deriv-

atives, A., 272.

Barrie, M. M. O., Patterson, J. B. E., and Underhill, S. W. F., estrogenic activity of cow's urine during pregnancy, A., 117.

Barringer, L. E. See Gen. Electric Co. Barris, R. W., and Ingram, W. R., effect of experimental hypothalamic lesions on blood-sugar, A., 1407.

See also Ingram, W. R.

Barritt, N. W., treatment and disposal of milk-factory effluents. I. By means of percolating filters and septic tanks, B., 398.

Barron, E. S. G., biological oxidations. VI. Oxidation of pyruvic acid by

gonoeocci, A., 760.

DeMeio, R. H., and Klemperer, F., biological oxidations. V. Copper and hæmochromogens as catalysts for oxidation of ascorbic acid, Λ ., 390.

See also Keys, A. Barron, H., rubber, bitumens, and road surfaces, B., 31. Emulsions for latex, B., 31. Reinforcement [of rubber] and stearic acid, B., 112.

Barron, L. E. See Curtis, G. M.

Barry, A. J., Peterson, F. C., and King, A. J., X-ray studies of reactions of cellulose in non-aqueous systems. I. Interaction of cellulose and liquid ammonia, A., 458.

Barry, T. H., future of natural resins, B.,

Barry, V. C., and Dillon, T., preparation and constitution of alginic acid, A., 1093.

Dillon, T., and O'Muineachain, P. derivatives of alginic acid. I. Acetylation of alginic acid, A., 1093.

Barsby, C. R. See Imperial Chem. Industries.

Barsha, J., and Hibbert, H., reactions relating to carbohydrates and polysaccharides. L. Chemical identity of cotton and wood cellulose, A., 971.

Barsoum, G. S., acetylcholine equivalent of nervous tissues, A., 226.

and Gaddum, J. H., pharmacological determination of adenosine and histamine in blood, A., 496. See also Anrep, G. V.

Barstow, E. O. See Dow Chem. Co.

Bart, B., [electrolytic] method of forming high-pressure [metal] tanks, (P.), B., 281. Bart, E. V. Seo Bart, K. V. Bart, K. V., Tschernaeva, D. A., and Bart,

E. V., treating vapour-phase-cracked gasoline with fuller's carth, B., 483.

Barta, R., development of heat during the hardening of cement, B., 545.

Bartaschev, V. A. See Tziurich, L. G. Bartel, H. See Thiessen, P. A. Bartel, L. H. See Rhodes, C. C.

Barthelet, J. See Arnaud, G.

Bartelink, E. H. B., calculation of work of emission of electrons from metals, A.,

See also Sommerfeld, A.

Bartell, F. E., electrodialyser, A., 1085. Culbertson, J. L., and Miller, M. A. alteration of the free surface energy of solids. I. Vertical-rod method for measurement of contact angles and effect of heat-treatment on magnitude of contact angles, A., 1458.

and Miller, M. A., alteration of the free surface energy of solids. II. Effect of heat-treatment of metals in air. III. Effect of heat-treatment of metals in a vacuum and in several gases, A., 1458.

and Zuidema, H. H., wetting characteristics of solids of low surface tension, such as talc, waxes, and resins, A., 1196. Bartels, E. L., and Blumstengel, G. C., ham-

mer mill, (P.), B., 576. Barter, A. M. See Archbold, H. K. Bartfay, M. See Szebellédy, L.

Barth, G. See Suhrmann, R.

Barth, H., mitogenetic radiation, A., 1019. Barth, K., Schuler, K., and Wanger, J., apparatus for aërating beer wort, (P.), B., 295.

Barth, T. F. W., crystallisation process of basalt, A., 699.

See also Ksanda, C. J. Barthel, R. See Heller, G.

Barthélemy, H. L., Huffman, E. E., Sellars, W. B., and Tubize Chatillon Corp., preparation of cellulose nitro-acetates, (P.), B., 637.

See also Mitchell, Winfred M.

Barthelmé, P. See Metzger, H.
Barthels, W. See Brabender, G.m.b.H.
Bartholomé, E., rotation of polyatomic molecules, A., 782. Thermal and caloric equation of state of condensed hydrogen isotopes. I. Determination of magnitudes of state, A., 1330.

and Eucken, A., direct calorimetric determination of C, of the hydrogen isotope in the solid and liquid state, A., 1057.

and Sachsse, H., interpretation of vibration spectrum of organic molecules with the aid of the isotopy effect, A., 9.

See also Clusius, K., and Patat, F. Bartholomew, E. T., and Raby, E. C., rapid weighings with a Troemner solution balance, A., 182. Recovery of hydrocyanic acid from fumigated Citrus leaves, A., 909. Photo-electric turbidimeter and alkaline titration method for determination of small amounts of hydrocyanic acid, A., 1220.

See also Sinclair, W. B.

Bartholomew, F. J. See Chem. Construction Corp.

Bartlett, \vec{B} . W. See Sommerfeld, A.

Bartlett, J. H., jun., prediction of isotopes, A., 130. Exchange forces and structure of the nucleus, A., 265. Negative protons in the nucleus? A., 403.

and Gibbons, J. J., jun., magnetic moment of the 'Li nucleus. I., A., 653. Gibbons, J. J., jun., and Watson, R. E., magnetic moment of the 'Li nucleus.

See also Shoupp, W. E.

II., A., 1175.

Bartlett, P. D., and Stauffer, C. H., enolisation as directed by acid and basic catalysts. III. Acid-catalysed enolisation of sec. butyl ketones, A., 317.

and Tarbell, D. S., mechanism of additive reactions; kinetic study of addition of methyl hypobromite to stilbene, A.,

600.

Bartlett, P. G., Kremers, H. C., and Röhm & Haas Corp., acid-resisting vitreous enamel, (P.), B., 835.

Bartlett, S., influence of high environmental temperature on secretion and composition of milk, A., 500.

Bartlett, W. W. See Harrison, G. R. Bartlett & Snow Co., C. O. See McKinnon,

H. L.Bartlett Hayward Co. See Wagner, F. H. Bartollni, B., "vagotropine" of Viale, A.,

Barton, A. J., and Treanor, F., electric

incandescence lamps, (P.), B., 845. Barton, C. H., Diesel fuel specifications, B., 867.

Barton, D. B., variation and migration of crude oil at Spindletop, Jefferson County, Texas, B., 818.

Barton, E., Albrook, R. L., and Staley Manufg. Co., A. E., glutamic acid compounds, (P.), B., 139.

Barton, H. A. See Mueller, D. W.

Barton, L. H. G., tests on tinplate, B., 840. Barton, P. D., and Alco Products, combined rectification and refrigeration process, (P.), B.,_1190.

Bartram, T. W., and Rubber Service Labs. Co., liquid fuel composition, (P.), B., 918. Bartrum, J. A., analcite rock from Cloudy Bay, Marlborough, New Zealand, A.,

Bartsch, C. E. See MacDougall, F. H.

Bartscher, K. See Haarmann, W. Bartter, F. C. See Heim, J. W.

Baruth, K. H. See Baruth, M. Baruth, L. L. See Baruth, M.

Baruth, M., Baruth, K. H., and Baruth, L. L., tea free from theine, (P.), B., 570. Barwich, H., separation of gas mixtures

by diffusion in streaming mercury vapour, A., 956.

and Schütze, W., enrichment of the light argon isotopes by diffusion, A., 1474. Bary, P. See De Gendre, C.

Barzakovski, V., measurement of conductivity of fused salts, and conductivity in the system NaCl-CaCl₂, A., 1071.

Barzilai, G., action of benzene in pregnancy, A., 515.

Bashkirov, A. N., and Orechkin, D. B., low-temperature carbonisation of coals from the Plotnikovski district, B., 5.

and Rapoport, B. M., phenols from the Barzass sapromyxite tar. II., B., 915. Bashulin, P., absorption of ultrasonic waves in certain liquids, A., 555. Absorption of ultrasonic waves in acetic acid [and benzene and toluene], A., 1453.

Basile, A., fine structure of the striated muscular fibres in normal and pathological conditions. I. Lipidosis of the striated muscular fibres and localisation of the lipin material in some toxic infections, A., 231.

Basiński, A., stability of colloids. II. Negative silver iodide colloid, A., 426. Baskin, C. M. See Standard Oil Develop-

ment Co.

Baslaw, B. Sce Englund, L. H.

Basler, H., manufacture of sheets or slabs from vegetable fibre pulp, (P.), B., 691. Basore, C. A., and Eiland, E. M., utilis-

ation of low-grade Alabama manganese ores, B., 199.

Jones, D. T., and Chem. Res. & Development Co., composition for use in welding or brazing, (P.), B., 1000.

Basov, V. T. Sce Liuban, A. P. Bass, A. D. See Lamson, P. D.

Bass, S. L. Sco Dow Chem. Co.

Bassa, B., tubular tunnel kiln, (P.), B., 1094.

Bassadone, E. See Jiménez Díaz, C.

Bassal, use of metals in furnace construction, B., 373.

Bassani, B., and Zambotti, V., micromethods for determination of magnesium, A., 260.
Basse, W. See Schmitt, F.
Basseches, J. T. See Levin, M.

Basset, J., and Dodé, M., solubility of nitrogen in water at pressures up to 4500 kg. per sq. cm., A., 1456. See also Machebouf, M. A.

Basset, L. P., simultaneous manufacture in a rotary furnace of iron or steel and Portland cement or hydraulic lime, (P.), B., 329.

Bassett, H., Bedwell, W. L., and Hutchinson, J. B., phosphates. IV. Pyrophosphates of some bivalent metals and their double salts, and solid solutions with sodium pyrophosphate, A., 1476.

and Sanderson, I., mechanism of permanganate reduction and induced oxidation of chlorion, A., 440.

Bassett, H. G., treatment [case-hardening] of iron and steel, (P.), B., 998.

Bassett, H. P., catalytic production of sulphur trioxide, (P.), B., 989. Removal of solvents from [cellulose ester] plastic colloids, (P.), B., 1111.

Bassière, M., orystal structure of silver azide, A., 16, 1054.

See also Rencker, E.

Bassin, A.L. See Clarke, M.F. Bassindale, R. See Alexander, W.B.

Basslavskaja, S., and Siroeschkina, M. influence of the chloride ion on tho chlorophyll content of potato leaves, A., 1432.

Bastani, M. G. See Courtot, C.

Bastien, P., pressure die-casting, B., 278. Heat-resisting chromium-cast irons, B., 457. Corrosion of ultra-light alloys, B., 890.

See also Portevin, A.

Bastin, E. S., "aplites" of hydrothermal origin associated with Canadian cobaltsilver ores, A., 184.

Bastin, R., and Martens, L., determination of saline contents of milk, B., 391.

Bastrup, K., and Gjerulff, J. P. H., [dolly for] dry cells, (P.), B., 556.

Basn, K., comparison of theoretical and empirical values for Stark effect displacement of the components of H, 18, A., 397.

Basu, K. P., and Mukherjee, S. P., action of dyes and other substances on milk dehydrogenase; identity of Schardinger enzyme with xanthine oxidase, A., 636.

and Nath, M. C., proteinase in the milky juice of Calotropis gigantea; its purification and activation by ascorbic acid

and glutathione, A., 637. and Sarkar, S. N., biochemical investigations on different varieties of Bengal rice. I. Chemical composition of various rice samples. II. Enzymic digestibility of rice starch: action of takadiastase, B., 566. Semi-micromethod of determining total nitrogen of air-dry soils, B., 611

Basu, N. M., and Maitra, S. R., effects of humidity and high temperature on [free] amino-content of rice, B., 903. Basu, S., and Hussain, M., X-ray studies

on electro-deposited silver, A., 1186. See also Prosad, K.

Basn, U., and Banerjee, B., pyridine series. II., A., 210.

Basnnti, V., action of acetylcholine on energy exchange, A., 374.

Bat, V. P., dehydrating and cleaning crudo

oil, B., 1188.

Bataafsche Petroleum Maatschappij, refined hydrocarbons and hydrocarbon mixtures, (P.), B., 53. Xanthates, (P.), B., 89. Hydrocarbon distillates, (P.), B., 260. Valuable products from mineral oils, (P.), B., 260. Separation of hydrocarbon oils [containing lubricating oils], (P.), B., 262. Separation of non-lubricating hydrocarbon oils, (P.), B., 262. Separation of lubricating hydrocarbon oils, (P.), B., 262. Mineral lubricating oils, (P.), B., 534. Alkenes with at least five carbon atoms in the molecule and derivatives thereof, (P.), B., 536. Drying oils, (P.), B., 558. Benzino with a high anti-knock value from benzine with a low anti-knock value, (P.), B., 584. Burning of oil, (P.), B., 584. Manufacture of oils and paraffin wax, (P.), B., 630. Organic peroxides, (P.), B., 683. Lubricants, (P.), B., 869. Halogenated organic acids, (P.), B., 872. Halogenated hydrocarbons, (P.), B., 919. Treatment of hydrocarbon mixtures, (P.), B., 969.

Bent, F. A., and Millar, R. W., hydrated

olefines [alcohols], (P.), B., 1141. De Simo, M., and McAllister, S. catalytic oxidation of ketols, (P.), B., 780.

Edlund, K. R., and Evans, T., esters from olefines, (P.), B., 441

and Elkington, H. D., splitting up a liquid mixture into its components or groups of components, (P.), B., 1072.

Griendt, G. H. van de, and Engs, W.,

alcohols, (P.), B., 1141. Groll, H. P. A., and Burgin, J., halogenated alcohols and halogenated ethers,

(P.), B., 871. Groll, H. P. A., and De Jong, H. W., catalytic oxidation of unsaturated alcohols, (P.), B., 88.

Groll, H. P. A., and Hearne, G., treatment of unsaturated [aliphatic] polyhalides, (P.), B., 54. Treatment of vinyl-type monohalides, (P.), B.,

Bataafsche Petroleum Maatschappij, Groll, H. P. A., and Hearne, G., conversion of unsaturated [hydr]oxycompounds into aldehydes, ketones, or substituted derivatives thereof, (P.), B., 264. Refining of light hydrocarbons containing mercaptans, (P.), B., 917.

Groll, H. P. A., and Ott, C. J., conversion of unsaturated alcohols and ethers into saturated aldehydes and ketones,

(P.), B., 359. Hund, W. J., and Rosenstein, L., preparation of acid amides and anhydrous or substantially anhydrous alcohols, (P.), B., 873.

and Kautter, C. T., monoalkylolamines, (P.), B., 780.

Lindeke, H. F., and Greensfelder, B. S., refining of hydrocarbon mixtures, (P.), B., 486.

and Malishev, B. W., cyclic compounds, (P.), B., 91.

and Tijmstra, S., extraction of liquid mixtures, (P.), B., 1072.

Batalin, V. S., Kozlovskaja, A. V., and Krupnova, A. V., separation and purification of ether from by-products from synthetic rubber, B., 753.

Batchelder, E. L., Miller, K., Sevals, N., and Starling, L., vitamin-A and -Ccontent of frozen blackberries, B., 393.

Batchell, G. W., lehr, (P.), B., 989. Batcheller, C., cold-moulding and rolling fibre plastic, (P.), B., 608.

Bateman, F. C. L. See Bennett, C. T.

Bateman, J. B., mitogenetic radiation, A.,

and Roughton, F. J. W., time course of heat effects in rapid chemical changes. I. Apparatus and methods. II. Reactions of hæmoglobin with oxygen and carbon monoxido, A., 91.

Bateman, R. L., and Day, A. R., carbamide derivatives in terpene series, A., 339. Bateman, W. H. See Jamison, E. A.

Bates, J. R., Anderson, Leigh C., and Halford, J. O., Raman spectra of deuteracetones and methyl alcohol-d, A., 1180. Bates, L. F., and Bagi, A., magnetic

properties of chromium, A., 1329. Gibbs, R. E., and Reddi-Pantulu, D. V., magnetic properties of manganese heated in nitrogen, A., 1055.

and Tai, L. C., magnetic properties of amalgams, A., 1329.

Bates, O. K., thermal conductivity of liquids; binary mixtures of water and glycerol, A., 674.

Bates, P. K. See Highlands, M. E. Bates, R. W., and Riddle, O., preparation

of prolactin, A., 116. Seo also Riddle, O.

Batisse, E. See Demolon, A. Batjer, L. P., and Oskamp, J., soils in relation to fruit growing in New York. VII. Tree behaviour on important soil profiles in the Kinderhook, Germantown, and Red Hook areas in Columbia and Dutchess counties, B.,

See also Peech, M.

Batrak, G. E., determination of bromine, A., 914.

Battegay, M., and Boehler, P., a- and β -anthracenediazonium salts, A., 602. 1-and 2-Mononitroanthracene, A., 1101.

and Calco Chem. Co., thiocyanato complex of p-phenylenediamine and similar amines, (P.), B., 55.

Battelle Memorial Institute. See Irion, C. E., Smith, Cyril S., and Williams, C. E. Batten, H. M., Welcome, C. J., and City Auto Stamping Co., electroplating bronze, (P.), B., 106. atten, W. E. See Imperial Chem.

Industries.

Battista, M. See Carrelli, A. Battistelli, M. See Bellavita, V.

Battle, H. W., jun., [black] lacquer enamel, (P.), B., 653.

Batty, G., relationship of moulds and cores to porosity in steel eastings, B., 322.

Batty, W. E. See Hodgson, H. H. Battye, A. E. See Tootal Broadhurst Lee Co.

Batuecas, T., and Casado, E. L., density of mercury at 0°, A., 417.

Ban, K. H., and Wang, K., reduction of methylene-blue by B. abort. infectiosi, Bang, and B. melitense, A., 524.

Baudin, L., regeneration of blood in fish following bleeding, A., 354. Modifications of blood of Perca fluriatilis, consecutivo to deep-sea fishing, A., 494. Cyclic variations in composition of fish blood, A., 495.

Bandisch, O., ageing and stability towards light of ferrous oxide hydrates in presence and absence of alkali nitrates,

A., 40.

and Benford, F., colour indicator for ultra-violet light in the wave-length range 2650-3341 A., A., 943.

Baudler, M., demonstration of prolan in

tumours, A., 1014.

Baudouin, A., Azérad, E., and Lewin, J., continuous injection of insulin in the dog; threshold dose by the peripheral intravenous route; threshold dose by the intra-arterial and the mesentericintravenous routes, A., 250. Insulin hypoglycæmia in myxædema, A., 883. Effect of hypertonic, intra-arterial injections on blood-sugar, A., 1284.

Bénard, H., Lewin, J., and Sallet, J., [slow] continuous injection of adrenaline: [absence of] effect on bloodurea, -cholesterol, and -calcium, A., 116. Effect of continuous injection of adrenaline on ketone content of urine, A., 250. Intra-vascular injection of adrenaline into dogs; hyperglycæmia and dosage by different methods of administration, A., 642.

and Lewin, J., continuous intravenous injection of insulin in man: limiting

dose, A., 902.

Baudouin, M., determination of the "protective-colloid" value of textile auxiliaries, B., 929.

Bauer, Emil. See Friedrich, A.

Bauer, Erich, carbohydrate feeding, A., 629. and Knüpper, H., action of large quantities of glucose in prolonged intravenous infusion, A., 515.

Bauer, Erwin, specific pyrophosphatase, A., 380. Activator of zymohexase, A., 894. Separation of a-glycerophosphatase and pyrophosphatase from bottom yeast, A., 896. Heterophosphatese, A., 1299. Activation and inhibition of zymohexase, A., 1299. Zymohexaso. III. Determination [of activity], A., 1556.

and Raskin, A., increase of diamagnetic susceptibility on the death of living

cells, A., 1558.

Schäffner, A., and Krumey, F., fermentative enzymes. IV. Specificity of yeast-phosphatase, A., 246.

Bauer, F., coment plaster, (P.), B., 235. Bauer, F. C. See Pieper, J. J.

Bauer, Hans, simple Wilson cloud-chamber, A., 1224.

Bauer, Herbert. See Goldschmidt, V. M. Bauer, Hugo, and Strauss, E., iodination of nitrotyrosine, A., 468. Substituted proteins. II. Iodination of hamoglobin and globin. III. Iodination of nitroglobin, A., 619.

Bauer, $J_{\cdot,\cdot}$ effect of adrenals and pituitary on regulation of blood-pressure and inversion of sex characters in man,

A., 252.

and Feil, F., effect of sex and adrenal cortex hormones on serum-lipase, A., 643. Depression of serum-lipaso by thyroxine and its inhibition. IV., A., 645.

Bauer, J. H. See Dubos, R., and Goodner,

Bauer, K. See Fischer, Hans.

Bauer, K. H., and Brnnner, K., lactucarium. II. Enzymes of the sap of

Lactuca virosa, A., 1417. and Herzog, H., oxidation of ααεε-tetra-phenyl-Δαδ-pentadiene and ααζζtetraphenyl- Δ^{ac} -hexadiene, A., 1496.

and Poethke, W., effect of propyl alcohol on hydrolysis of sulphuric acid esters, A., 804.

Bauer, L. N. See Summerbell, R. K. Bauer, O., is corrosion research ripe for

standardisation? B., 501.

and Schikorr, G., lead containing antimony for water service pipes, B., 935. Bauer, Oskar. See Täufel, K.

Bauer, P., do cut leaves give physiologically correct assimilation values? A., 1162.

Bauer, S. G. See Bird, A. L.

Bauer, S. H., inhomogeneous fields for mass spectrography, A., 130. Analytic method of interpretation of electron diffraction photographs of gases, A., 1055. Dipole moments of molecules in solution, A., 1065. and Hogness, T. R., products and pro-

cesses of ionisation in methyl chloride as determined by a mass spectrometer, A., 38.

See also Badger, R. M.

Bauer, S. T. See Ralston, A. W.

Bauermeister, H., and Kersten, R., corrosion experiments with bolts in lightmetal constructional parts, B., 890.

Bauersfeld, W. Seo Mailander, R.

Bauguess, L. C., and Berg, C. P., kynurenic acid from tryptophan and indole derivatives, A., 104. Tryptophan metabolism. VIII. Growth and kynurenic acid production on carboxylic acid derivatives of tryptophan, A., 885.

See also Cowan, D. W., and Loehwing, W. F

Bankloh, W., and Guthmann, H., decarburisation of alloy steels by hydrogen, B., Hydrogen-permeability decarburisation of steels, Armco iron, copper, nickel, and aluminium, B.,

and Hieber, G., influence of different metals and metallic oxides on decomposition of carbon monoxide, A., 570. and Kayser, H., permeability to hydrogen of copper, iron, nickel, aluminium,

and some alloys, B., 236. and Zimmermann, G., hydrogen-permeability of steel in electrolytic pickling, B., 599.

Baum, K. M. See Ralston, O. C. Bauman, L. See Cortese, F.

Bauman, R. M., selenium and tellurium content of pyrites and waste products of U.S.S.R. and Caucasian sulphuric acid factories, B., 884.

Baumann, E. See Nagel, W.

Baumann, F., and Alexander Chem. Co., elimination of marks formed in rollerprinting of textile fabrics by accidental spreading of the discharge agent, (P.), B., 1148.

Baumann, H. N., jun. See Benner, R. C. Baumann, H. P., printing of acetate [rayon] fabrics, B., 451.

Baumann, T., reducing power of vitamin-Cin urine in health and disease, A., 120.

Baumbach, H. L. See Crowell, W. R. Baumer, L. See Felix, K.

Baumgärtel, C. See Grunzig, W. Baumgärtel, T., increased production by feeding dried yeast to milch cows, B., 1125. Baumgardt, E., variation with temperature

of the absorption of ultrasonic waves by liquids, A., 417.

See also Renaud, P.

Baumgarten, A. See Gerth, G. Baumgarten, P., oxidation of aqueous sulphite solutions in presence of pyridine. II. Autoxidation of aqueous sulphite solutions; mechanism of sulphite autoxidation, A., 434. Fission (sulpholysis) of carbamide by sulphuric acid; simple preparation of amidosulphonic acid and imidosulphonates, A., 1237. 3-Pyridylpyridinium salts, A., 1268. Formation of dithionate by the action of pyrosulphate on sulphite, A., 1476.

Baumgartner, J. G. See Wallace, M. D.Baumswollspinnerei Gronau, apparatus for mercerisation of cellulose fibres of all

kinds, (P.), B., 272.

Baur, E., sensitised photolysis of glycollic acid and glyoxylic acid, A., 572. Electrolytic reduction and oxidation of aminoacetic acid and alanine, A., 943.

and Preis, II., delayed oxidation of cysteine and ascorbic acid, A., 685.

Bausch, H., square reagent glasses for comparators, A., 181.

Bausch, V., jun., electrochemical production of stable images and characters, (P.), B., 125.

Bausch & Lomb Optical Co. See Drescher, T. B., and Scott, M. R.

Baver, L. D., genesis of soil microstructure B., 513.

and Winterkorn, H., sorption of liquids by soil colloids. II. Surface haviour in hydration of clays, B., 113.

Bawn, C. E. H., kinetics of polymerisation reactions, A., 296.

Baxter, G. P., and Hale, A. H., at. wt. of carbon, A., 540.

Hönigschmid, O., and LeBean, P., sixth report of the committee on Atomic Weights of the International Union of Chemistry, A., 657.

Baxter, J. P., properties of chlorinated rubber, B., 753.

See also Imperial Chem. Industries.

Bay, Z., condensed discharge, A., 1311.
Bayard-Duclaux, (Mme.) F., electrical conductivity of rocks, A., 1226.

Bayen, M., measurements of dispersion in the ultra-violet, A., 409.

Bayer, A. R., quantitative analysis of deposits in manufactured gas-distribu-

tion systems, B., 1027.

Bayer, E., automatic titration burette, A., 1224.

Bayer, G., and Wense, T., detection of hormones in unicellular animals. I. Choline and acetylcholine in Paramccium. II. Adrenaline in Paramecium, A., 1559.

Bayer, K. See Grube, G.

Bayerische Berg-, Hütten-, & Salzwerke Akt.-Ges., apparatus for separating granular material in an ascending current of a fluid medium, (P.), B.,

Bayerische Stickstoff-Werke Akt.-Ges., oiling of calcium cyanamide, (P.), B.,

Bayerl, V., electrolytic decomposition of

water, B., 555. Bayerle, H., Borger, G., and Mayr, T., pathological physiology of infarcts. IV. Arginase in necrosis, A., 1540. See also Borger, G.

Bayfield, E. G., soft winter wheat studies. IV. Factors producing variations in wholemeal "time" data, B., 216. wholemeal "time" data, B., 216. Use of wheat-meal "time" test with hard and soft wheats, B., 344. Influence of soil and fertilisers on quality of soft

winter wheat, B., 1223.

Bayley, D. S., Curtis, B. R., Gaerttner, E. R., and Goudsmit, S., diffusion of

slow neutrons, A., 1313.

Baylis, J. R., filtering materials for rapid sand filters. Vb. The sand-gravel interface, B., 526.

and Gullans, O., improved odour test on water, B., 622.

Baylis, W. S., and Filtrol Co. of California, refining of asphalt-base petroleum, (P.), B., 486

Bayliss, L. E., Lythgoe, R. J., and Tansley, K., new forms of visual purple found in sea fishes: visual cells of origin, A., 624.

Bayliss, N. S. See Acton, A. P. Baymilier, C. C. See Merrill, F. D.

Baymiller, J. W., and Geer, W. C., treatment of rubber surfaces, (P.), B., 1113. Bazett, H. C. See Sumwalt, M.

Bazlen, M., and Scholtz, F., decolorisation of indigotin by alkyl- and aryl-sulphinic

acids, A., 85.

Bazuirina, E., and Tschesnokov, V., determination of rates of photosynthesis [in plants] under natural conditions, A., 648.

See also Tschesnokov, V. Bazzocchi, A., deformable bobbins for spinning of artificial yarns, (P.), B., **4**50.

See also Tootal Broadhurst Lee Co. Beach, D. C., rotenone determination:

observations and suggested method, B.,

Beach, $E.\ F.$ See Rakestraw, $N.\ W.$ Beach, $J.\ R.$ See Schalm, $O.\ W.$

Beach, J. Y., quantum-mechanical treatment of helium hydride molecule-ion HeH+, A., 925.

See also Brockway, L. O., and Pauling,

Beach, N. F. See Eastman Kodak Co. Beach, W. S., control of tobacco wildfire. II., B., 613.

Beacham, T. E. See Stream-Line Filter

Beakes, H. L., pigment properties and the technology of paint grinding, B., 650. Beal, C. L., and Amer. Anode, Inc., composite product [containing rubber], (P.), B., 290.

Beal, G. D. See Green, M. W. Beal, G. F. See Sørensen, S. O. Beale, E. B. See Standard Oil Co.

Beale, E. S. L., and Docksey, P., widerange b.p. conversion chart for hydro-

carbons and petroleum products, B., 51. Ball-and-bucket viscosimeter, B., 527.

Beall, D. [with Edson, M.], isolation of œstrone and equilin from pregnant mare's urine, A., 762

Beals, E. L., and Gilfillan, F. A., ephedrine synthesis. I. Propiophenone diethyl acetal and a-ethoxy-a-phenyl-\Delta^a-propylene, A., 1002.

Beamer, C. M. See Archibald, F. M., and Lebo, R. B.

Beamish, F. E., assay of the platinum metals, B., 550.

Beams, A. J. See Barlow, O. W.

Beams, H. W., and King, R. L., survival

of ascarid eggs after centrifuging, A.,

Beams, J. W., and Haynes, F. B., separation of isotopes by centrifuging, A., 1312.

and Trotter, H., jun., acceleration of electrons to high energies, A., 130.

Bean, C. M., Kenyon, J., and Phillips, H., Walden inversion reactions of d-(+)a-ptoluenesulphonoxypropionic acid and and their derivatives, 706.

Bean, E. L., Providence water treatment, B., 222.

Bean, J. J. See Hines, P. R.

Bearcroft, H. W., washing and classifying metalliferous earths, (P.), B., 25.

Beard, E. E. Seo Du Pont de Nemours &

Beard, F. See Thomas, B. H. Beard, H. H., cancer as a problem in

metabolism, A., 230. and Boggess, T. S., comparison of the anæmia produced by feeding young rats on human, cow's, and goat's milk, A., 504. Origin of creatine from proteins and amino-acids, A., 509. Effect of parenteral injection of aminoacids and related substances on creatine formation and storage in the rat, A.,

Tripoli, C.J., and Andes, J.E., diagnostic and prognostic significance of creatinecreatinine metabolism in various myopathies before and after amino-acid

therapy, A., 366.

Beard, L. C., jun. See Rather, J. B.

Beard, R. E. See Standard Oil Co.

Beard, W. K., production of high-B.Th.U. gas in a carburetted water-gas plant, with particular reference to the use of heavy oil, B., 726. Nitrie oxide in crude water-gas, B., 726.

Bearden, J. A., and Kanne, W. R., emission of protons by samarium, A., 1313.

and Roseberry, H. H., cleavage and X-ray planes of calcite crystals, A., 1449. See also Gottling, P. F., Lyford, D., and

Roseberry, H.H.Bearse, G. E. See Carver, J. S., and Miller, M.W.

Beasley, I. E. See Glasser, O.

Beasley, M. R., and Bird & Son, artificiallycoloured [roofing] granules, (P.), B.,

Beater, B. E., soil analysis as an index to fertility, B., 384. Analyses of bagasse furnace ashes, B., 711.

Beath, O. A., selenium in native range plants occurring on soils derived from Permian or Triassic (?) sediments [of the Chugwater formation, Albany Co., Wyoming], A., 532. Eppson, H. F., and Gilbert, C. S.,

sclenium and other toxic minerals in soils and vegetation, B., 35.

Beattey, E. J. R., [non-creasing] rayon, (P.), B., 1202.

Beattie, F. J. R., colorimetric microdotermination of choline and acetylcholine, A., 1235.

Beatty, H. A. See Calingaert, G.

Beatty, R. M., and Cragg, L. H., sourness of acids, A., 289.

Beau, M., rennet and curdling of milk, B., 1123.

Beauchamp, W.D. See Ingersoll, A.W. Beaufils, J. See Caillaud, J.

Beaufond, L., nitrogen from molasses, B.,

Beaument, A. B., hypothesis to explain brown root-rot of Havana seed tobacco, B., 1118.

Beaumont, G. See Massière, R.

Beaumont, J. H., removal of lead [spray] residues from apples in Maryland, B., 392. Satisfactory washing methods for spray-residue removal [from apples] in the East, B., 426.

Beaune, A., biological determination of the male hormone in carp, A., 1157.

and Falk R., action of the male hormone on the sexual characteristics of the crested triton: test for the hormone, A., 1031.

See also Broun, D.

Beauvilain, M., high-frequency measurement of the diclectric constant of dilute solutions of salts in different solvents, A., 1460.

Beaux, A. R., glutathione of erythrocytes in hyper- and hypo-thyroidism, A., 221. Beaven, G. H., and Hill, D. W., reactions of

 o - hydroxybenzylidenediaeetophenones; diacetophenones derived from 3-methoxysalicylaldehyde, A., 474.

Beavens, E. A. See Pederson, C. S. Beaver, C. E. See Sultzer, N. W.

Beazell, J., and Crandall, L. A., jun., blood-purine derivatives in migraine, A., 883.

Bebeschin, K. V. See Smorodincev,

Bebin, P. See Souviron, P. F. J.

Beccari, E., action of quinic and phenylcinchoninic acids on metabolism, A., 376. Observations on the pharmacological action of ergotamine by experiments on the Pagano-Hering reflex, A., 1022. Pharmacognosy of peyotl. II. Microscopy and chemistry, A., 1037.

and Boriani, A., reflex and direct respiratory action of sympathomimetic substances, A., 757.

Bech, P. F., photo-electric determination of salicylic acid, A., 91.

Béchard, C., electrodeposition of bronze, using bimetallic anodes, B., 151.

Bechdel, S. I. See Gardner, F. D.

Becher, C., jun., talöll-liquid resin, B.,

Becher, W. See Hertel, E.

Bechtel, A. R., increased save-all recovery with chemical control [in paper manufacture], B., 185.

Bechtel, T. B., electric annealing of brass and copper, B., 795.

Bechterev, P., determinative elastic and deformation constants of crystals, with applications to isotropic substances, A.,

Bechtold, E., methæmoglobin formed postmortally, spontaneously, and by chemicals, and that formed by drying, A., 1007.

Beck, A., and Coste, F., streptococcal complement-fixing reaction in rheumatic disenses, A., 884. Beck, E. B. See Standard-I.G. Co.

Beck, F., utilisation of potato juice, B., 428. Starch sugar and beet sugar manufacture; a thermotechnical comparison, B., 1120.

Beck, F. A. See Leo, H. T.

Beck, F. F. See Carr, C. J., and Krantz, J. C.

Beck, G., transformations in technical flames, B., 818.

Beck, Gottfried, microchemical test for gallium with morin, A., 1221.

Beck, Guido, present state of the neutrino hypothesis, A., 1046. Energy levels of light nuclei, A., 1316.

and Horsley, L. H., non-elastic collision cross-sections for slow neutrons, A.,

1173.

Beck, H., cathode bead-like discharge, A., 2. Intensification by drying of Hg lines in a mercury-hydrogen discharge, A., 2. Mechanism of high-frequency discharges, A., 2.

Beck, Heinz. See Darapsky, A. Beck, Helmut. See Jores, A.

Beck, H. H., and Weckel, K. G., measuring thickness of thin, flowing, liquid films, A., 1085.

Beck, J. See Klein, Gustav. Beck, L. L., and Claude Neon Lights, positive-column lamp, (P.), B., 748.

and Ecksol Corp. of America, luminous tube, (P.), B., 555. Cathode, (P.), B.,

Beck, L. V., and Chambers, R., secretion in tissue cultures. II. Effect of sodium iodoacetate on the chick kidney, A., 374.

See also Chambers, R.

Beck, W., Bonath, K., and Deuts. Gold-& Silber-Scheideanstalt vorm. Roessler, fused salt bath for carburising iron, steel, etc., (P.), B., 280.

Beck, Z. See Fuchs, L.

Beck, Koller & Co., Inc., chemistry in the modern synthetic-resin plant, B., 30.

and Hovey, A. G., artificial resin plasticisers [for nitrocellulose], (P.), B.,

and Krumbhaar, W., melting and treating organic substances [varnish], (P.), B., 608. Siccatives, (P.), B., 653. Polymerised oils, (P.), B., 701. Treatment of natural gums, (P.), B., 1218. See also Krumbhaar, W.

Becke, F. See Späth, E. Becken, O., and Sommermeyer, K., processes at the cathode of arc discharges, A., 1311.

Beckenbach, J. R., Wadleigh, C. H., and Shive, J. W., nutrition of maize. I. Statistical interpretation of the nutriention effect on growth in artificial culture, B., 852.

Becker, A. See Kisselmann, W.

Becker, B. See Euler, H. von, and Karrer, P.

Becker, C. N., drying and processing of pebble phosphate in the Florida field, B., 317.

Becker, Erich (Darmstadt), and Schöpf, C., microchemical detection of pterins in insects, A., 1404.

See also Schöpf, C.

Becker, Erich (Kladno), correct evaluation of the material value of metal castings, B., 151. Special brass for casting, B., 549. Hard soldering of ferrous and nonferrous castings and its significance for foundries, B., 550.

Becker, Eugene, is linoleic acid essential in nutrition of rats? A., 102. Vitamin-C (ascorbic acid) content of the paprika product "vitapric," A., 120. and Hangai-Szabó, B. von, action of

substances used for treating flour on the animal organism, B., 1065.

Becker, E. A., behaviour of pigment suspensions in a high-tension electric field, B., 29.

Becker, E. H. See Martus, M. L.

Becker, E. R., and Morehouse, N. F., liver as source of vitamin- B_2 , A., 1032. Vitamin-B2 from different sources and coccidian infection, A., 1429.

Becker, F. (Bad-Nauheim). See Israël-Köhler, H.

Becker, Franz. See Becker, W.

Becker, Gottfried, Hertel, E., and Kaster, C., reactions in which metal atoms are exchanged between a gaseous and a solid phase, A., 1350. See also Hertel. E.

Becker, Guillaume. See Nelson, H. H. Becker, H., forgeability of welded joints,

B., 1099.

Becker, Jakob, and Suszko, J., action of perbenzoic acid on cinchona-bark alkaloids, A., 741.

Becker, Joseph. See Koppers Co. of Delaware.

Becker, J. A. See Bell Telephone Labs. Becker, J. P., behaviour of dl-serine, dlphenylalanine, dl-alanine, dl-lactic acid, and propionic acid towards X-rays and ultra-violet light, A., 437. Comparison of photochemical decomposition of laspartic acid, l-asparagine, and glycylglycine by X-rays and ultra-violet light, A., 437.

See also Holtz, P.

Becker, K., [wire-]drawing tools of hard metals, B., 1099.

Becker, M. See Noll, A. Becker, M. L., and Phillips, C. E., internal stresses and their effect on fatigueresistance of spring steels, B., 742.

See also Hankins, G.A., and Tapsell, H.J.Becker, O. See Hock, L.

Becker, R., measurement of permeability by means of skin effect, A., 1187.

Detonation, A., 1208. and Döring, W., kinetic treatment of formation of nuclei in supersaturated

vapours, A., 156.

Becker, W., bitumen as "mineral rubber" in the rubber industry, B., 802.

Englert, O., and Becker, Franz, binding the water of food extracts, yeasts, juices, hygroscopic substances, etc., (P.), B., 811. Treatment of zinc muds or sludges, (P.), B., 1207. Beckerleg, G. R. See Stothert & Pitt.

Becket, F. M., Franks, R., and Electro Metallurg. Co., heat-treatment of chromium alloy steels, (P.), B., 1045.

See also Electro Metallurg. Co. Beckhuis, W. H., disadvantages of diiodotyrosine in the treatment of hyperthyroidism, A., 1015.

Becking, L. G. M. B. See under Baas-Becking, L. G. M.

Beckinsale, S. Sec Callender's Cable & Construction Co.

Beckley, V. A., coffee in Kenya. I. Chlorosis and die-back, B., 38.

Beckman, A. O. See Simmons, N. L.

Beckmann, S. See Komppa, G.
Beckmann, W., and Noelle, H., frictionpromoting compositions, (P.), B., 1136.
Becksmann, E., age and origin of the

Oberharz lead-zinc dykes, A., 959. Beckwith, L. B. See Bray, U. B. Beckwith, M. M. See Clark, G. L.

Beckwith, T. D., metabolism of certain Chlorella and allied forms, A., 392.

Becquerel, J., determination of paramagnetic susceptibilities of crystals of rare earths by measurement of the paramagnetic rotatory power, A., 148. Optical method for measurement of paramagnetic susceptibilities; application to the ethyl sulphates of the raro earths in the direction of the optic axis, A., 1057.

Beddow, J. See Universal Oil Products Co. Bedel, C., minimum temperature of oxid-

ation of silicon, A., 1217.

Bedford, C. C., nitrogenous constituents of dried apricots during browning, B., 1231.

Bedford, H. E. See Pyrene Co.

Bedford, R. H., care of fresh halibut aboard ship, B., 168. Salt as a control of bacterial decomposition of halibut, B., 168. Discolorations of stored fresh and frozen fish and their control, B., 760.

Bedi, S. S., and Narang, K. S., quinazolines.

 IV., A., 1126.
 Bedos, P., and Ruyer, A., Δ^{1:3}-cyclohexadiene and structure of its monoxide, A., 598.

Bedwell, W. L. See Bassett, H. Beebe, C. W., and Frey, R. W., comparative permanence of vegetable-tanned leathers containing sodium chloride and sodium tartrate as indicated by gaschamber tests, B., 1169.

Beebe, R. A., and Goldwasser, S., electrometric and analytical evidence for composition of precipitated basic

copper perchlorate, A., 38. Low, G. R., jun., Wildner, E. L., and Goldwasser, S., adsorption of hydrogen and deuterium on copper at low pressures, A., 282. See also Soller, T.

Beecher, F. See Block, D.J. Beecher, H. K., and Krogh, A., microscopic observation of absorption of insulin and protamine insulinate, A.,

Beeching, R., electron diffraction pattern from the natural (111) face of diamond,

A., 17.

Beeck, O., effect of adsorbed water on catalytic decomposition of hydrocarbons (by a molecular beam method), A., 169. Simple oil micromanometer, A., 183. Existence of a sharp temperature threshold for catalytic decomposition of molecules on a hot platinum surface, A., 435.

Beekhuis, H. A., and Atmospheric Nitrogen Corp., fusion of materials, (P.), B., 959. Vapour-phase production of ammonium nitrate, (P.), B., 987.

See also Atmospheric Nitrogen Corp. Beeley, F., official grading of proprietary fungicides for treatment of mouldy-rot disease of [Hevea] rubber trees, B., 1012. Beer, E. See Kemula, W.

Beerman, H., Kulchar, G. V., Pillsbury, D. M., and Stokes, J. H., 1:8-dihydroxyanthranol as a substitute for chrysarobin, B., 523.

Beese, N. W. D., and Johnson, C. H., optical activity. VI. Racemisation of potassium chromioxalate in aqueous solution; accelerating influence of ions, A., 190.

Beeson, C. See Stone, H. W. Beeson, K. C. See Hill, W. L.

Beeson, W. M., influence of breed and ration on carotene and vitamin-A content of milk, A., 528.

Beest, A. C. van. See Moerbeek, B. H. Beeston, A. W., Channon, H. J., Loach, J. V., and Wilkinson, Harry, effect of dietary caseinogen in prevention of

fatty livers, A., 886.
Channon, H. J., and Wilkinson, Harry, influence of caseinogen content of diets on "cholesterel" fatty liver, A.,

and Wilkinson, Harry, effect of liver feeding on the "fat" content of the liver, A., 510.

Beet, A. E., and Furzey, D. G., Kjeldahl

method for determination of nitrogen in foods, feeding-stuffs, leather, etc., B., 521. Beetz, P. See John, H. Beevers, C. A., and Lipson, H., numerical

method for two-dimensional Fourier synthesis, A., 782. and Schwartz, C. M., crystal structure

of nickel sulphate heptahydrate, NiSO₄,7H₂O, A., 16. See also Lipson, H.

Beezhold, W. F., and Ornstein, L. S., Raman effect in chemical dynamics,

Beger, H., Leptothrix echinata, a new iron bacterium, precipitating manganese, A., 248. principally

Begg, P. J., asbestosis bodies, A., 1542. Begg, N. D., and Coveney, M. F., whooping-cough: diagnostic significance of blood counts, A., 101.

Béguin, C., diurnal variations in the carbohydrate content of leaves, A., 1569.

Behaghol, O., and Müller, Wilhelm, fission of ketosulphidocarboxylic acids. II. Aryl sclenohalides. VI., A., 87. and Schneider, Ernst, 1-amino-5-ethoxy-

2-methylbenzthiazolinm hydroxide and its derivatives, A., 348.

Behimer, O. See Texas Co.

Behmenburg, H. See Chudoba, K. Behmenburg, P. See Clauberg, A. Behne, E. R., automatic p_H measurement

[of clarified sugar juice] and liming control, B., 423. Exhaustion of Queensland molasses, B., 710.

Behne, R., properties of the immersion objective when used with rapid electrons, A., 814. Images of foils with the im-

mersion objective, A., 927.

Behnke, A. R., Forbes, H. S., and Motley, E. P., circulatory and visual effects of oxygen at three atmospheres pressure, A., 1413.

Thomson, R. M., and Shaw, L. A., rate of elimination of dissolved nitrogen in man in relation to the fat and water content of the body, A., 1398. See also Shaw, L. A.

Běhounek, F., apparatus for direct determination of radon in water and in air, A., 583.

Santholzer, V., and Ulrich, F., radioactivity of oil-waters in Czechoslovakia, A., 184.

Běhounek, O. See Schacherl, F. Behr, G., dentifrices, (P.), B., 526. See also Rippel, A.

Behr, O. M., influence of "stearine" on heat-polymerisation of sardine oil, B.,

Behr-Manning Corporation. See Crnpi, F. J.

Behre, J., incorporation of fillers in rubber mixings, B., 802. Behre, J. A. See Benedict, S. R.

Behrens, B., and Graubner, W., respiratory stimulating action of loboline and carbon dioxide on the morphinised respiratory centre in rabbits, A., 892.

Behrens, W. U., relationships between

surface area, hygroscopicity, and heat of wetting of soil, B., 113. Relation between soil hygroscopicity, water content, and plant growth, B., 164.

Behringer, H. See Altenkirch, E. Behrman, A. S., and Gen. Zeolito Co., preparation of base-exchange mater-

ials, (P.), B., 274. and Porous Rubber Products Trust, porous [rubber] separator [for storage batteries, etc.], (P.), B., 705.

Beier, H. G. See Brintzinger, H. Bellenson, B., and Hamer, (Miss) F. M., 5-chloro- and 5-bromo-1-methylbenzthiazole and certain dyes prepared from them, A., 1275.

Beintema, J., crystal structure of cerium tungstate, A., 143. Crystal structure and composition of sodium dihydropyrostibiate, A., 143. Crystal structure of magnesium and nickel antimonates, A., 669. Crystal structure of barium antimonate, A., 783. Terpstra, P., and De Vrieze, J. J.,

crystallography of the copper-pyridine-saccharin complex, A., 16.

Terpstra, P., and Weerden, W. J. van, crystallography of hexa-ω-bromomethylbenzene, A., 274.

Béis, C., determination of acid potassium tartrate and free tartaric acid in fruit juices and wines, B., 424.
Beischer, D., and Winkel, A., directed

coagulation in aërosols, A., 679.

Beken, F., and Hunt & Co., E., mixing machines, (P.), B., 223.

Bekier, E., catalytic action of salts on velocity of ionic reactions. II., A.,

Bekk, J., what the printing process demands of paper, B., 94.

Bekkedahl, N., and Matheson, H., heat

capacity, entropy, and free energy of rubber hydrocarbon, A., 417.

Bekker, J. G. Seo Wyk, C. M. van. Beklemischeva, T. See Essin, O.

Bekunov, V. A., photographic properties of gelatin. I. Labile sulphur and its relation to preparation of photographic emulsions, B., 908.

Bela, H_{\cdot} , absorption and fluorescent spectra of naphthalene derivatives, A., 921

Belaev, P. P., and Gurevitsch, J. B., electrolytic lead plating, B., 936.

Belák, S., and Illényi, A., respiration apparatus for small animals, A., 91.

Belani, C., and Bergite Co., explosives, (P.), B., 300.

Belani, E., new uses for maizo flour and straw, B., 120. Cholla and mesquite gums-new aids for plastic materials, B., 166. Tar and tar oils, B., 676. Bavarian fuller's earths in mineral oil refining, B., 1076.

Belavoine, P., presence of manganese in tea, B., 811.

Belavskaja, L., measurement of coefficients of absorption of ultrasonic waves in gasos, A., 583.

Belcher, D. See Sendroy, J., jun. Belchetz, L., and Rideal, E. K., decomposition of propane and n-butane at carbon filaments, A., 169. Belden, D. S., Kelley, W., and Filtrol Co.

of California, absorbent [clay] low in salts and free from acid, (P.), B., 274.

Belenki, I., technical reclaimed rubber from mixed rubbers (synthetic plus natural rubbers,) B., 655.

Belflori, O. See Oliverio, A. Belflord, J. See Yorkshire Tar Distillers. Beliankin, D. S., and Ivanova, V., three kaolins, A., 1228.

and Onisimo-Janovski, V., plagioclase and its determination in pegmatites, A., 817.

and Toropov, N. A., micro-structures of some calcium aluminate melts, A.,

Belikova, M. See Salkind, J. S.

Belinfante, A. H. See Jorissen, W. P. Belitzer, W. A., inverse Pasteur reaction, A., 522.

Belk, W. P., minor hæmagglutinins; blood containing autoagglutinin, heteroagglutinins, hemolysins, and a rouleau-forming substance, A., 748.

See also Pons, C. A. Belkin, M. See Chambers, R.

Belknap, E. L., lead absorption in man. III. Blood-pressure observations, A., 1417.

Bell, A., and Clark, R. H., preparation of unsaturated hydrocarbons by elimination of halogen acids from corresponding halides, A., 451.

Bell, A. C. See Gallay, W. Bell, A. F., sick soils, B., 383.

Bell, C. E., decomposition of organic matter in Norfolk [U.S.] sand: effect on soil and drainage water, B., 657.

Bell, D. J., improved preparation of diisopropylidencglucose, A., 192. Simultaneous formation of two isomoric isopropylidene derivatives of 2-methyly-methylglucoside, A., 457. Crystalline 6-methylglucose, A., 968. Liver-glycogen. IV. Molecular structure of glycogen formed after ingestion of galactose by fasted rabbits, A., 1403. 3:6-Dimethylglucose: methods of synthesis, A., 1492. Bell, E. B. See Hall Labs.

Bell, F., pyrolysis of chlorophenols, A., 1244. Interaction of arylsulphonyl-phenylhydrazines with bromine, A.,

Bell, G. D. H., vernalisation, B., 246.

Bell, G. H., and Robson, J. M., oxytocic properties of blood extracts and their physiological significance, A., 252.

Bell, H. D., chromium in cyanido solutions, B., 1036.

Bell, J., and Hall, W. K., reversible indicator for detection of small quantities of hydrogen sulphide in the atmosphere, B., 349.

Bell, James, effect of heavy water on colour of hydrated salts, A., 689.

Bell, (Miss) J. C., Robertson, A., and Subramaniam, T. S., constituents of the bark of Xanthoxylum Americanum (Mill). I. Xanthoxyletin, A., 859.

Bell, J. M., viscosimeter, (P.), B., 1073.

Bell, M. E. See Drummond, J. C.

Bell, O., trends in the manufacture and use of lubricating oils, B., 1077.

Bell, R. A. See Imperial Chem. Industries. Bell, R. P., calculation of dipole interaction, A., 12. Reactions involving proton transfers, A., 803. Mechanism of N-halogenoacylanilide re-arrangements, A., 1242.

and Brown, J. F., acid catalysis in non-aqueous solvents. III. Rearrangement of N-iodoformanilide in anisole

solution, A., 1471.

and Guggenheim, E. A., mean values for the dipole moments of the harmonic and anharmonic oscillator in quantum mechanics, A., 1181.

See also Edwards, A.J.

Bell, R. T. See Jaeger Truck Mixers (England), Ltd.

Bell Telephone Laboratories, Inc., and Becker, J. A., asymmetric conductor [dry rectifier], (P.), B., 606.

Bozorth, R. M., and Dillinger, J. F., magnetic material and treatment thereof, (P.), B., 842. and Gordon, C. S., coating for insulated

wires, (P.), B., 652.

and Gray, A. N., insulated conductor,

(P.), B., 418. Gray, A. N., and Kemp, A. R., vulcanisable compound, (P.), B., 803.

and Harris, J. E., continuously [magnetically loaded conductor, (P.), B., 747. and Kelsall, G. A., magnetic material, (P.), B., 842.

and Kohman, G. T., impregnation of

insulating materials, (P.), B., 1104. Legg, V. E., Peterson, E., and Wrathall, L. R., magnetic [iron-nickel alloy] material and treatment thereof, (P.), B., 602.

and Long, G. E., coating electrodes [of radio-valves with graphite], (P.), B.,

and Martin, J. J., plastic composition, (P.), B., 560.

and Prescott, C. H., jun., activation process for electron [dull] emitters, (P.), B., 1002.

and Russell, A. G., [palladium] metal coating for electroplated articles [e.g., gramophone master records], (P.), B., 604. Electroplating upon a metallised

surface, (P.), B., 1103. and Walker, A. C., electrical conductor, (P.), B., 556.

Belladen, L., and Galliano, G., photo-electric effect of metallic alloys. I. and II., A., 420, 1193.

Bellamy, H. T., porous bodies or materials,

(P.), B., 21.
Bellavita, V., nitrones; a new transposition reaction. II. and III. Transformation [of oximes] into cyano-derivatives of anils, A., 74.

and Battistelli, M., arsenical derivatives of thymol, A., 351.

See also Finzi, C.

Belle, G., surface tension of cow's milk. A., 749.

Bellecci, P., tannic acid and soaps are not antidotes for mercury, A., 377.

Bellecour, P., dyeing of silk and "albène" textiles, B., 1089.

Belling, T. See Bizette, H., and Jacquinot,

Bellingen, W. See Darapsky, A.

Bellino, F. See Ciusa, R. Bellis, A. E., bright finishing of metals, (P.), B., 239.

Bellows, J. See Rosner, L. Bellows, J. G., biochemistry of the lens. IV. Origin of pigment, A., 1534.

Belluc, S., Chaussin, J., Cottet, J., Laugier, H., and Ranson, T., urinary balance and diuresis, A., 1406.

Bellucci, L., Sgarzi, M., and Barillaro, A., chemical and physico-chemical analysis of the mineral water of Fontecchio, A., 698.

Beloff, E. See Gault, H.

Belohlavek, B. See Witkowitzew Bergbau-& Eisenhütten-Gewerkschaft.

Beloit Iron Works. See Dundorc, M. W. Beloni, E., nickel-kieselguhr and nickel borate catalysts in oil- and fat-hardening, B., 1165.

Belonoschkin, B. See Wöhlisch, E. Belonosov, I. S. See Goljanicki, I. A. Belopolski, A. N., ammonia-soda process

on a mirabilite basis, B., 639. Belopolski, A. P., and Schpunt, S. J., lower transition point of the mutual lower transition point 5.3.20, system Na₂SO₄-NH₄HCO₃-H₂O, A., 290. Mutual aqueous system Na₂SO₄-

NH₄HCO₃-H₂O at -17°, A., 290.

Belopolski, M. P., fat of the white and of the Okhotsk brown bear, B., 845.

and Maximov, O. B., hydrogenation of the solid fraction (stearin) of Japanese sardine oil, B., 28. Action of kieselguhr on oils at high temperatures, B., 29.

Beloruchev, L. V. See Smirnov, A. V. Belotzerkovski, G. M. See Alexeevski, E. V.

Belousskaja, F. M. See Babitscheva, V. N. Belov, V. N. See Rodionov, V. M., and Schorigin, P. P.

Belova, L. I. See Sergeev, M. E. Belovodski, V. V., and Goluschko, N. A., formation of metallurgical magnesite

powder in the rotary kiln, B., 643. Belski, T. K., high-grade half-stuff from fibrous materials containing chaff, B., 925.

Belt, J. S., Cady, H. P., and Belt Natural Resource Corp., J. S., solid carbon dioxide, (P.), B., 146.

Belt Natural Resource Corporation, J. S. See Belt, J.S.

Belton, J. W., surface tensions of binary liquid mixtures containing benzene, A., 150. Surface tensions of ternary solutions. III., A., 151. Physical significance of activity coefficients in reversible electrode equilibria, A., 800.

Beltrami, W. See De Caro, L. Belussov. See Korjuev, N. Belval, H. See Colin, H.

Belvedere Chemical Co., Ltd., vulcanisation of rubber, (P.), B., 754, 1168.

and Howland, L.H., treatment of rubber, (P.), B., 896.

Belwe, E., electron interference of aluminium oxide, A., 927.

Belz, F. See Heupke, W. Bemberg Akt.-Ges., J. P., metal foils

covered with cellulose foils or films, (P.), B., 97.

Bemont, L. H. See Maw, W. A. Bena, R., textile uses of talc, B., 590.

Bénard, H. See Baudonin, A., and Fiessinger, N.

Bénard, J., and Chaudron, G., decomposition of ferrous oxide, A., 803.

Benazzi, M., action of follicular hormone on the thyroid of castrated women, A., 1157.

Bencowitz, I., and Boe, E. S., change of penetration with temperature of various asphalts, B., 774.

Benda, A., waterproof material made of fibrous cellulose for floor coverings, etc., (P.), B., 737.

Bendaña, A., and Lewis, H. B., utilisation of inulin for growth by the young white rat, A., 511.

Bendas, II. See Karror, P.

Bender, D., rotational Raman spectrum of nitrous oxide, A., 9. Raman effect of water vapour, A., 1050.

Bender, H., and Great Western Electro-Chem. Co., chlorination [of aromatic compounds], (P.), B., 921. See also Hirschkind, IV.

Bender, M., determinations with registering spherical cadmium cells, A., 305.

Bender, R. See Grassmann, W.
Bender, R. C. See Supplee, G. C.
Bender, W. Soe Brückner, H.
Bendien, W. M., prevention of foaming in distillations, A., 1436.

Bendix Brake Co. See Rosner, A. Beneden, G. van. See Vivario, R.

Benedetti-Pichler, A. A., application of statistics to quantitative analysis, A., 1351.

and Spikes, W. F., qualitative microseparations, A., 695.

Benedicenti, A., toxicity of methyl alcohol, A., 108.

Benedicks, C., electrical resistivity of Faraday steels; gas analysis and new phenomena on remelting in the radiation furnace, B., 743. Hardening of solid solutions (age-hardening), B., 890.

and Treje, R., application of microchemistry to metallurgy, B., 600.

Benedict, F. G., old age and basal metabolism, A., 753. and Bruhn, J. M., chimpanzee meta-

bolism, A., 1143.

and Garven, H. S. D., basal metabolism of male Chinese in Manchuria, A., 753. See also Turner, A. H.

Benedict, J., rôle of the liver in fat metabolism; lipase action, A., 1545.

and Mayer, G., influence of ketonic substances on serum-lipase, A., 1024. Benedict, M. A. See Scatchard, G.

Benedict, S. R., and Behre, J. A., colour reaction for creatinine, A., 1013. See also Sugiura, K.

Benedict, W. L. See Morrell, J. C., and Universal Oil Products Co.

Benedict, W. S., ultra-violet absorption spectra of deuterammonias, A., 1317. See also Morikawa, K., and Taylor, H. S.

Beneszevicz, D., volume of an anisotropic liquid in a magnetic field, A., 1447.

Benetato, G., effect of adrenalectomy on p_H and buffering power of muscle, A., 750.

and Munteanu, N., chemical transmission of the nervous influx at the level of the central synapses, A., 1146. Influence of the acid-base ratio of foods on physico-chemical properties and capacity for work of isolated muscle, A., 1549.

and Oprean, R., effect of adrenalectomy on colloidal state of [frog] muscleproteins, A., 750.

See also Urechia, C. I.

Bénèvent, M. T. See Roche, J.

Benford, F. See Baudisch, O. Benford, F. G., beryllium-(cobalt-)copper alloys, B., 744.

Benford, G. A., precision thermostat for use down to -20° , A., 181.

Bengen, M. F., and Bohm, E., use of ammonium sulphate serum of milk in serological investigations, A., 1405.

Benger, E. B., economic and technical aspects of the rayon industry, B., 586.

Bengis, R. O., oxidation of fat fraction of roasted coffee, B., 714.

Bengough, G. D., and Wormwell, F., waterline corrosion, B., 599, 841.

Bengston, H., and Aluminum Colors, Inc., coated aluminium articles, (P.), B., 1049. Bengtsson, B. E., sitostanol and stigmastanol, A., 69.

Benham, G. H. See Dayson, H.

Benhamou, E., and Gille, R., chemical factors of malaria-flocculation (Henry reaction) in anophelian paludism, A., 365.

Benin, G. S., and Balla, E., sulphitation and active carbon treatment of juice from dehydrated beets, B., 662.

Benina, S. S. See Mintz, I. B.
Beninato, R. See Cannavô, L.
Benjamin, C. S. See Gen. Chem. Co.
Benjamin, M. See M.-O. Valve Co.
Benjamin, M. S., saltbush; its mineral composition, A., 123.

Benkovič, P. See Samec, M. Benloz, P., heat-treatment of corrosion-

resistant steels, B., 547.
Benn, C. H., and Benn, C. L., tar-distillation and similar stills, (P.), B., 820.

Benn, C.L. See Benn, C.H.Benne, E.J., Perkins, A.T., and King, H. H., effect of calcium ions and reaction

on solubility of phosphorus [in soil], B., 1011.

Bennek, H., and Holzscheiter, C. G., influence of uranium on structure, hardenability, and temper-stability of plain steels, B., 105.

Bennekou, I., and Schou, S. A., optical properties of ergometrine, A., 742.

Benner, R. C., Ball, A. L., Houchins, H. R., and Carborundum Co., maturing of ceramic articles, (P.), B., 147.

Baumann, H. N., jun., and Carborundum Co., silicon carbide refractory, (P.), B., 371. Permeable ceramic diaphragm, (P.), B., 1041.

and Carborundum Co., artificial grindstones for pulp grinding, (P.), B.,

Easter, G. J., Boyer, J. A., and Carborundum Co., silicon carbide refractory, (P.), B., 695.

Easter, G. J., and Carborundum Co., fused refractory and abrasive materials, (P.), B., 836.

Easter, G. J., Hawke, C. E., and Carborundum Co., electric furnace and its operation, (P.), B., 155.

Porter, G. H., and Carborundum Co.,

bond for abrasive particles, (P.), B.,

Bennet, R., and MacGillivray, J. C., drying and cooling apparatus, (P.), B., 623.

Bennet, R. G., China, the Chinese, and China-wood oil, B., 700.

Bennett, A. Seo Kirklees, Ltd.

Bennett, A. H., acid calcium citrate, (P.), B., 319.

Bennett, A. L. See Malinovski, A.

Bennett, C. A., and Gaus, G. E., fractionating device [for fibrous material], (P.), B., 256.

Bennett, C. G., use of paper for packing dairy products, B., 856.

Bennett, C. T., and Bateman, F. C. L., alcohol content and specific gravities of tinctures of the B.P.Codex, 1934, B., 75. and Campbell, N. R., jun., m.p. of chloral formamide, B., 74.

Bennett, C. W., and Photo-Cast, Inc., photographic developer, (P.), B., 1132.

Bennett, G. M., Brookes, G. L., and Glasstone, S., dissociation constants of monohalogenated anilines and phenols, A., 159.

and Jones, B., velocities of reaction of substituted benzyl chlorides in two reactions of opposed polar types, A.,

and Wain, R. L., organic molecular compounds. II. and III. Compounds of phenols with some synthetic cyclic oxides, A., 1241. See also Baddeley, G.

Bennett, G. W., and Wright, W. A., evaporation behaviour of mixed lacquer sol-

vents, B., 801.

Bennett, H. D., and Toledo Scale Manufg. Co., refrigeration, (P.), B., 672.

Bennett, H. T., Hopkins, H. H., Marshall, J. R., and Mid-Continent Petroleum Corp., treatment of petrolatum, (P.),

B., 821. and Mid-Continent Petroleum Corp., dewaxing of mineral oils, (P.), B., 261. High-viscosity index [lubricating] oils, (P.), B., 487. Separation of mineral oils, (P.), B., 487. Treatment of mineral oils with selective solvents, (P.), B., 533. Separation of constituents of mineral oils, (P.), B., 533. Recovering elefine hydrocarbons from gases, (P.), B., 820. Flange oil,

(P.), B., 822.

Bennett, J. F., and Godley, T. W., plastic materials and goods, and means and methods of waterproofing, and rendering the same electrically insulating, (P.), B., 655.

See also Hercules Powder Co.

Bennett, J. G., broken coal, B., 1136. Bennett, L. L., glucose absorption and glycogen production in the hypophysectomised rat, A., 1563.

See also Russell, J. A.

Bennett, (Miss) M. A. See Toennies, G. Bennett, N. See Imperial Chem. Industries. Bennett, O. G., and Catalyst Research Corp., [metallic] catalyst for hydrogenation of [vegetable] oils, (P.), B., 416.

Bennett, R. D. See Heyworth, D. Bennett, T. I., and Gill, A. M., treatment of severe diabetes in children with protamine insulinate, A., 1407.

Bennett, W. E., stopping-power of mica for a-particles, A., 1172.

Bennett, W. H., and Darby, P. F., negative atomic hydrogen ions, A., 263.

Bennett, W. R., [heat-]treatment of fer-

rous metals, (P.), B., 602.

and Bennett-Chapmanizing, Inc., [case-] hardening [ferrous] metals, (P.), B., 153. Bennett-Chapmanizing, Inc. See Bennett,

W.R.Bennewitz, K., and Kratz, L., specific heat of non-electrolytes in solution, and effect of the dielectric constant of the solvent on the vibrational state of their

molecules, A., 1065. and Rötger, H., viscosity of solids; absorption frequencies of metals in the acoustic region, A., 1192.

Benninga, N. See Backer, H. J., and Strating, J.

Benoit, (Mlle.) G., and Bovet, D., synthesis and pharmacological study of derivatives of aminomethyldihydro-oxazine which exhibit an adrenaline-like action, A., 214.

Benroth, J. S. See Sweek, W. O.

Benson, E. T., and Cady, G. H., influence of structural irregularities on chemical character of No. 6 coal in Franklin and Williamson counties, Illinois, A., 186.

Benson, H. K., and Partansky, A. M., anaërobic decomposition of sulphite waste liquor discharged into water bodies, B., 814.

See also Partansky, A. M.

Benson, L. J. See Aluminum Co. of America.

Benson, S. R., and Calderwood, H. N., chemical examination of seed of Abies balsamea (L.), Miller, A., 911.

Bent, F. A., and Wik, S. N., nitrocellulose lacquers; rate of evaporation of liquids, B., 703.

See also Bataaische Petroleum Maats. Bent, H. E., and Cline, J. E., single linking

energies. III. C·C linking in diphenyldidiphenylene-ethane, A., 1341.

and Cuthbertson, G. R., single linking energies. II. C.C linking in hexaphenylethane, A., 291.

Cuthbertson, G. R., Dorfman, M., and Leary, R. E., single linking energies. I. C.C linking in hexaphenylethane, A., 291.

and Ebers, E. S., vapour density of hexa-

phenylethane, A., 1454.

Gresham, W. F., and Keevil, N. B., apparatus for determination of adsorption of small quantities of gas by solutions, A., 1085.

and Irwin, H. M., jun., sodium fluorenone as a dehydrating agent, A., 1474.

and Keevil, N. B., electron affinity of free radicals. X. Potentiometric method for determining ΔF for the addition of sodium to an organic compound. XI. Free energy of addition of sodium to ketones and unsaturated hydrocarbons, A., 1052, 1205. Viscosity of sodium amalgams, A., 1192.

Larsen, E. S., and Berman, H., physical investigation of phenyl β-hydroxy- $\beta\beta$ -diphenylvinyl sulphone, A., 1327. See also Coolidge, A. S., and Cuthbertson,

G. R.Bent, L. N. See Hercules Powder Co. Bentall, E. E., impact pulverisers, (P.), B., 3.

Bentley, W. H. See Blythe & Co. Bentley, W. L., synthetic yarns and their

reaction in the boil-off, B., 364.

Benton, A. F., and Cunningham, G. L., heterogeneous reaction kinetics; effoct of light exposure on kinetics of thermal decomposition of silver oxalate, A., 37.

Bentsath, A. See Armentano, L., and Koranyi, A. Bentz, H. W. See Melitta-Werke Akt.-

Benz, C. A., cybotactic group structure of isopentane near the critical point, A., 15.

Benz, C. V. See Conover, C. Benz, F. See Karrer, P.

Benz, P., standardisation of insecticides, B., 1116.

Benzinger, W., apparatus for treatment of molten material [manufacture of foam slag], (P.), B., 480.

Beran, F., arsenic content of fodder grass due to use of insecticides, B., 394.

Beránek, Z. See šimek, B. G. Berchet, G. J. See Du Pont de Nemours & Co., E. I.

Berchtold, M., blue-glazed ceramic articles, (P)., B., 455. Berezeli, H. See Elöd, E.

Berek, M., determination of optical anisotropy constants of absorbing crystal sections from polarisation observations in perpendicularly reflected light, A., 1328.

Berenblum, I., and Kendal, L. P., destruction of 1:2:5:6-dibenzanthracene in

the mouse, A., 630.

Kendal, L. P., and Orr, J. W., tumour metabolism in the presence of anticarcinogenic substances, A., 1014.

Berend, M., and Farkas, E., composition of the gastric mucosa, A., 625.

Berenschtein, D., and Zotova, N., artificial leather "prima," B., 850.

Berenschtein, G. See Gersehzon, G. I.

Béres, T. Seo Dániel, E. von. and

Zechmeister, L.

Bereslavsky, E. V., motor fuels, (P.), B., 584. Bereslavska, N. V. See Chertok, V. R. Berestneva, Z. J., and Kargin, V. A., application of the barium amalgam electrode to determination of activity of barium ions in aqueous solutions, A., 162. Alkali amalgam electrodes and their application to study of colloidal solutions, A., 162. Adsorption of barium chloride from acidic and basic silica sols, A., 1334.

Beretervide, J. J., and Rechniewski, C., mechanism of mercury diuresis, A., 108.

Berezovski, G. V. See Kondirev, N. V.

Berg, B. N. See Schoenheimer, R., and

Scott, A. H. Berg, C. P., resolution of dl-lysine, A., 1236. and Hanson, H. E., availability of tryptophan derivatives for supplementing diets deficient in tryptophan, A., 369. See also Bauguess, L. C.

Berg, F. F., fluid extract of ergot: effect of acidity on biological activity as determined by the U.S.P. 1935 revised

assay, B., 475.

Berg, G. J. van den. See De Haas, W. J.

Berg, O., Imhoff, M., and Heiberg, O. E., weighting of [silk] fibres, (P.), B., 100.

Berg, P. van den, nitration of benzylaniline and its derivatives, A., 1501.

Berg, P. P., and Mikeladze, A. S., cast iron for abrasers, B., 104.

Berg, R., effect of diet on the constitution of the organism, A., 1017.

Berg, W. F., and Sandler, L., plasticity of bismuth, A., 145.

Bergami, G., liberation of an acetylcholinelike substance from surviving nerve fibres during electrical stimulation in vitro, A., 1413.

Baer, P., aud Boeri, E., variations in urinary excretion of allantoin in rats on ketogenic and anti-ketogenic diets, A., 1017. Colorimetrio determination of uric acid (Folin) with delayed

colour-formation, A., 1436. Bergauer, V., crystallisation of sodium chloride in the serum of guinea-pigs and rabbits during experimental hyperthyroidism and hyperpituitarism, A.,

Bergedorfer Eisenwerk Akt.-Ges. Astra-Werke, centrifugal separators, (P.), B., 1136. See also Aktieb. Separator-Nobel.

Bergeim, F. II. See Barrett Co. Bergel, F., and Todd, A. R., structure of ancurin and thiochrome, A., 1276.

Synthesis of thiochrome, A., 1394. See also Barger, G., and Todd, A. R.

Bergell, C., action of electrolytes in ground

toilet-soaps, B., 557.

Bergen, W. von, testing physical and chemical properties of wool by means of the microscope, B., 363. Casein-wool,

Berger, Edwin, chemical corrosion of glass, B., 1152.

and Geffeken, W., time law for action of alkali on glass, B., 102.

Berger, Erwin, and Erlenmeyer, H., immunochemistry of pyridine and its

derivatives, A., 1285.

Berger, E. B. Sco London, M. E.

Berger, H., electrodeposition of cobalt, (P.), B., 1000.
Berger, R. F. See Barr, F. T.

Berger & Sons, Ltd., L., Wakeford, L. E., and Harris, L. E., treatment of drying oils or varnishes produced therefrom [with phosphorus chlorides], (P.), B., 750.

Borges, C. Soc under Berges Maschinen-fabr., C. & W. Berges, W. Soc under Berges Maschinen-

fabr., C. & W.

Berges Maschinenfabrik, C. & W., presses for artificial resins, (P.), B., 608.

Bergh, A. A. H. van den, and Grotepass, W., porphyrins in the incubated bird's egg, A., 749.

Bergite Co., Ltd. See Belani, C.

Bergk, H. W. See Hertel, E. Bergkampf, E. S. von, X-ray investigation of potassium diborane and its hydrolysis especially products, potassium hydroxydiborane, A., 173.

Berglund, H., and Scriver, W. de M., colorimetric determination of urinary protein, plasma-protein, urinary and plasma-albumin; salting out of these proteins, A., 503.

Berglund, N. See Edin, H. Bergman, D. J. See Universal Oil Products Co.

G. Bergman, Ġ. Seo Vinogradov, A. P.

Bergman, G. II., bleaching powder, (P.), B., 407.

Bergman, G. K., electrolytic conductivity of calcium hydrogen sulphite solutions at 20°; (system CaO-SO₂-H₂O), A.,

Bergman, H. C. See Greeley, P. O., and MacKay, E. M.

Bergman, W. L. See MeNally, W. D. Bergmann, E., rearrangement of thiocyanates into thiocarbimides, A., 63. Dipole moment and molecular structure. XVI. Configuration of ethylenic compounds, A., 715. Reduction experiments with 2:3:4:5-tetraphenylthiophen, A., 733. Synthetical experiments with benzhydrylsodium, A., 852.

and Bergmann, Felix, thermolysis of cholesteryl chloride, A., 600. and Blum-Bergmann, (Mrs.) O., cyclo-

pentenotriphenylene, A., 1371. and Bondi, A., new types of racemisation

reactions, A., 1359. and Heimhold, H., glucosides of the glyoxaline series, A., 736.

and Hirshberg, $J_{\cdot, \cdot}$ structure of naphthalene, A., 600.

Bergmann, E., Polanyi, M., and Szabo, A. L., substitution and inversion of configuration, A., 803.

nd Weizmann, (Miss) A., dipole moment and molecular structure. XVII. Dipole moments of azo-dyes and similar substances. XVIII. Dipole moments of substituted amethylstyrenes, A., 1183.

See also Weizmann, C.

Bergmann, F. von. See Zinnitz, F. Bergmann, Felix. See Bergmann, E., and Weizmann, C.

Bergmann, Fritz, production of surface alloys by diffusion, (P.), B., 603.

Bergmann, G., and Hänsler, J., photoelectric investigations of semi-conductors, A., 779.

Bergmann, K. See Atzler, E.

Bergmann, L., determination of the Curie point of ferro-magnetic substances, A., 1224.

and Fues, E., determination of elastooptical constants from diffraction experiments, B., 1093.

Bergmann, M., and Fruton, J. S., new type of enzyme in the intestinal tract, A., 759. Nature of cathepic enzymes, A., 1420,

and Niemann, C., blood-fibrin; protein

structure, A., 1283. and Ross, W. F., proteolytic enzymes. VIII. Proteolytic systems of papain. X. Enzymes of papain and their activation, A., 110, 1152. Synthetic substrates for protein-digesting enzymes, A.; 1237.

and Studienges, der Deutscher Lederind. G.m.b.H., tanning of hides and skins,

(P.), B., 805.

and Zervas, L., proteolytic enzymes. IX. Inactivation of papain with iodine, A., 1152.

Zervas, L., and Fruton, J. S., proteolytic enzymes. XI. Specificity of papain peptidase I, A., 1657. Zervas, L., and Schneider, F., stopwise

degradation of polypeptides, A., 595.

Bergmann, P., and Guertler, W., reflecting power of the binary mixed crystal series copper-nickel, A., 1061. See also Schmitt, II.

Bergmann, W., fatty acids of chrysalis oil, A., \$78.

Bergneon, S., [dyeing and finishing of] tinsel fabrics, B., 98. Decaltising rayon [fabrics in finishing], B., 451.

Bergo, G. J. See Karshavin, V. A. Bergqvist, A. See Seving, F. W.

Bergsøe, P., metallurgy of gold and platinum among the Pre-Colombian

Indians, B., 199.

Bergson, C. R., sulphite[-pulp] process, B., 312.

Bergsteinsson, H. N. See Larmour, R. K.Bergström, H., and Kindman, K., earbonisation of wood in mobile kilns, B., 818.

Bergström, S., polysaccharide hydrogen sulphates with heparin-like action, A.,

Bergstrom, F. W., Wright, R. E., Chandler, C., and Gilkey, W. A., action of bases on organic halogen compounds. I. Reaction of aryl halides with potassium amide, A., 1372. See also Wright, R. E.

Berhenke, L. F. See Pearce, J. N. Beri, M. L., and Sarin, J. L., synthetic camphor from Indian turpentine, B., 906.

Beriau, O. A., and U.S.B. Process, Ltd., printing [from marble blocks], (P.), B., 243.

Bering, B. P., and Pokrovski, N. L., properties of metallic solutions. 11. Surface tension of amalgams, A., 1459.

Sec also Sementschenko, V. K. Berisso, B. See Martini, A.
Berk, A. A. See Schroeder, W. C.
Berkeš, I. See Mladenović, M. M.

Berkman, J. P., and Schilianski, Z. G., active acidity of hides in individual stages of chrome tanning, B., 948.

Berkner, F., green manuring, B., 708. Crude lignite as fertiliser, B., 898. Influence of physiologically acid or alkaline manuring on the yield, and incidence of scab and iron-stain in three genetically and ecologically distinct varieties of potato, B., 1012. Soil productivity, B., 1223.

Berkson, J. Sec Nygaard, K. K.

Berl, E., tubular structures from cellulose derivatives, (P.), B., 57. Manufacture of films and foils from cellulose esters and ethers by the dry-spinning process, (P.), B., 491.

and Kunze, W. C., starch nitrates, A., 56. and Mathieson Alkali Works, carrying out electrochemical reactions, (P.),

B., 240.

Berl, H. See Schäffner, A.
Berlié, I., evaluation of cellulosic débris in semolina, B., 712.

Berlin, A.J. Sec Scherlin, S.M.

Berlin, II., and Resinox Corp., corn-gluten

plastic, (P.), B., 111. Berlin, L., Voznesenskaja, O., Nikonova, I., and Fiskina, R., hygroscopicity and water content of superphosphate from flotational apatite, B., 640.

Berlin, L. E., production of boric acid in the U.S.S.R., B., 58.

Berlin-Karlsruher Industrie-Werke Akt .-Ges., steel gas-bottle for high pressures, (P.), B., 106.

Berlin University, Institut Tierernährung, use of wood-sugar for fattening pigs, B., 905.

Berliner, E., testing the quality of wheats and wheat flours, B., 566.

Berliner, E. R. See Kefeli, M. M. Berliner, (Miss) F. See Schoenheimer, R.

Berliner, J. F. T., crystal urea; industrial development and properties, B., 584. See also Du Pont de Nemours & Co., E. I.

Berliner, M. See Texas Co.

Berlingozzi, S., and Donatelli, G., chemical constitution and pharmacological action; quinoline-4-carboxylic acids, A., 1292.

and Lenoci, R., salts of camphor-10sulphonie acid (Reychler's acid), A., 856.

and Testoni, M., influence of pectin on inversion of sucrose, A., 35. Influence of colloids on velocity of inversion of sucrose, A., 1471.

Berlowitz, M., apparatus for raising liquids, treating air and other gases, and particularly air-conditioning, (P.), B., 770.

Berman, E. See Brikker, F. Berman, H. See Bent, H. E.

Berman, L., Paget's disease. II. Effect of adreno-cortical extract treatment on blood-phosphatase in Paget's disease, A., 884.

See also Bruman, F. Berman, S. L. See Nakhmanovitsch, M. I.

Bermann, R. J. See Weissmann, G. A. Bermejo, L., and Herrera, J. J., organic sulphur compounds. IV. Molecular compounds of sulphides with mercuric chloride. V. New sulphide and its derivatives, A., 1229, 1239.

Herrera, J. J., and Panizo, F. M., organic sulphur compounds. VI. Preparation and study of a-phenylpropyl sulphide,

A., 1239.

Bernakiewicz, L. See Dziewoński, K. Bernal, J. D., and Crowfoot, (Miss) D. M., X-ray crystallographic data on the sex hormones, estrone, androsterone, testosterone, progesterone, and related substances, A., 1451.

Djatlova, E., Karsanovski, I., Reichstein, S., and Ward, A. C., structure of strontium and barium peroxides,

SrO₂ and BaO₂, A., 783. See also Bannister, F. A.

Bernard, L. M., the iodine combine: its connexions with the Chili nitrate industry, B., 738.

Bernardi, A., and Schwarz, M. A., action of lithium, sodium, and potassium bromides and iodides on activity of amylase of the fowl's crop. VII. and VIII., A.,

Bernardini, G., and Bocciarelli, D., absorption of penetrating corpuscular radiation under different zeniths, A., 542. Influence of earth's magnetic field on penetrating radiation in geographical latitude of Florence, A., 1046. Problem of "swarms," A., 1175.

Bocciarelli, D., and Oppenheimer, F., amplifier for the coincidences of proportional wire counters, A., 1481.

and Emo, L., y-radiation from Po+Be, A., 1043.

and Mando, M., decomposition of beryllium under influence of y-rays, A., 1045.

Bernauer, F., rapid sulphide deposition on organic residues at volcanic sulphur springs, A., 1482. Berndt, E. C., and Creighton, H. M.,

irradiating a substance by means of ultra-violet rays, (P.), B., 27.

Berndt, G., distortion of photographic layers; behaviour of films on development, B., 220.

Berndt, K., determination of acidity and alkalinity of paper, B., 186.

Berndt, W. See Suhrmann, R.

Berne-Allen, A., jun. Sec Standard Oil Development Co.

Bernegg, A. S. von, Heierle, E., and Almasy, F., spectrophotometric determination of chlorophyll a, chlorophyll b, carotene, and xanthophyll, A., 396.

Berner, E., and Leonardsen, R., optically active anhydrides. I. Anhydride of d-amethylglutaric acid, A., 455.

Bernhard, K. See Flaschenträger, B. Bernhard, R. See Shafter, R. R.
Bernhard, W. G. See Page, I. H.
Bernhardt, E. O., and Wiester, H. J.,

metallographic films, B., 196.

Bernhaner, \hat{K} ., Görlich, \hat{B} ., and Köcher, E., production by moulds and bacteria of substances similar to vitamin-C, A., 1027.

and Iglaner, A., production of acids from sugar by Aspergillus niger. VI. Factors affecting accumulation of citric acid. VII. Importance of nitrogen source for citric acid production, A., 1026, 1558.

Bernhaner, K., Iglauer, A., Groag, W., and Köttig, R., butyl alcohol and acetone fermentations. II. Intermediate products of the butyl alcohol-acetone

fermentation, A., 1560. and Irrgang, K. [with Adler, K., Mattauch, M., Müller, P., and Neiser, F.], condensation reactions of unsaturated aldehydes. V. Condensation reactions of crotonaldehyde under the influence of different condensing agents, A.,

Müller, P., and Neiser, F., condensation of aryl methyl ketones, A., 1100.

and Thole, H., production of acids by Rhizopus. I. Production of malicacid in fumaric acid fermentation, A., 1559.

Bernheim, F., and Bernheim, M. L. C., action of drugs on choline esterase of

brain, A., 1416.

Bernheim, M. L. C., and Gillaspie, A. G., oxidation of amino-acids; determination of the keto-acids and [detection of the] hydrogen peroxide produced, A., 1133.

See also Webster, M. D.

Bernheim, G., and Revillon, G., application of photo-electric methods to the Duboscq colorimeter, A., 305. Bernheim, M. L. C. See Bernheim, F.

Bernhoeft, C., tinning of copper wire, B.,

Berni, A., and Restivo, G., bactericidal power of metals (zinc), A., 1562.

Bernschtein, O. V. See Plotnikov, V. A. Bernstein, S. See Holley, C.

Berr, A. See Bach, F. Berraz, G. See Damianovich, II.

Berrier, H., influence of starvation on the content of plant-auxin-like substances in the larva of Discoglossus pictus, Otth., A., 1534.

Berry, A. F., stationary kilns for burning bricks, blocks, tiles, etc., (P.), B.,

Berry, A. J., phenosafranine, tartrazine. and rose-Bengal as adsorption indicators, A., 811.

Berry, G. A., and Calco Chem. Co., cooling of hot gases containing oxides of sulphur, (P.), B., 988. Berry, G. P. See Syverton, J. T.

Berry, Harry, extractives of capsicum, B.. 75. Stability of aqueous solutions of ouabain and k-strophanthin, B., 75. Extract of hamamelis, B., 1016.

and Davis, H., relative merits of maceration and percolation for preparation of tincture of Digitalis, B., 75.

Berry, Henri. See Daure, P. Berry, J. A. See Diehl, H. C.

Berry, M. H., soft-curd milk, B., 249.

Berry, R. M. See Smith, N. B. Berry, W. E. See Steward, F. C.

Berry, Wiggins & Co., Ltd., and Holmes, H. H., bituminous macadam, (P.). B., 500.

Bersin, T., thiol compounds and their significance in enzymic conversion

of carbohydrates, A., 243. Methylglyoxal, A., 591. and Koster, H., effects of activators,

inhibitors, and destructive agents on urease, A., 1153. See also Jusatz, H. J.

Bersutski, V. See Tsukervanik, I.

Bertetti, J. W., and McCabe, W. L., sodium hydroxide solutions; heat of dilution at 20°, A., 429. Specific heats of sodium hydroxide solutions, A., 565.

Berthelot, A., and Amoureux, G., use of tetrachlorobenzoquinone for identification of the methylamines, A., 972.

Amoureux, G., and Deinse, F. van, triethanolamine; action on bacteria, A., 1029.

See also Ramon, G.

Berthelot, C., comparison of the Bergius and Fischer methods for preparing synthetic hydrocarbons, B., 532. New methods for treating auriferous minerals. B., 841.

Berthier (Mlle.) P., filtration of mineral powders in suspension in water and in different aqueous solutions, B., 378.

See also Boutaric, A.

Bertho, A., biological cell oxidation, A.,

Berthold, R., and Stäblein, F., examination of welds of great wall thickness by mesothorium radiation, B., 1099.

and Zacharov, M., [steel] investigations with X-ray intensifying screens, B., 501.

Berthoud, A., and Mosset, M., addition of bromine and iodine to compounds with an ethylene linking; photobromination of ethyl m-nitrobenzylidenemalonate, bromination of fumaric and malcic acids, addition of iodine to allyl alcohol, A.,

Bertiaux, M., colorimetric determination of iron as Fe(CNS)₃, A., 1082.

Bertin, C. F. J. M. See Établs. Luchaire. Bertonasco, E., Digitalis lanata and D. purpurea: comparative biological investigation, A., 393. Dyes from resorcinol, sulphuric acid, and alcohols, A.,

Bertram, A. See Eucken, A.

Bertram, E. A., and Lacey, W. N., rates of solution of gases in oils; rate of solution of methane in oils filling spaces between sand grains, B., 435.

Bertram, J., and Schieweck, E., cleansing agents for the skin, (P.), B., 302.

Bertram, S. H., elaidinisation of oleic acid and cis-trans-isomerism, A., 189, 590. Heptadecane; action of selenium on stearic acid, A., 1090. Mechanism of the elaidinisation reaction, A., 1488. Retarding effect of stannous salts on oxidation of olein and oils, B., 1165.

Bertrand, G., physiological action of zine in animals, A., 515. Xylitol pentaacetate, A., 1229. Iron in vegetable ashes, A., 1307. Addition to arable soils of combined sulphur from the

atmosphere, B., 1059.

and De Saint-Rat, L., colour reaction of copper and urobilin, A., 1221.

and De Waal, H. L., comparative boron contents of plants grown in the same soil, A., 650.

and Silberstein, L., comparative sulphur and phosphorus content of plants grown in the same soil, A., 395. Comparative sulphur and nitrogen contents of plants grown in the same soil, A., 650.

and Weber, A. P., conjugated action of follicular hormone and mineral catalysts on growth of yeast, A.,

Bertrand, M. F., future prospects of clean coal, B., 1174.

Bertsch, C. V., X-ray studies of crystals vibrating piezoelectrically, A., 273. Bertuzzi, F. A. See Fester, G. A.

Béruard, G. See Leulier, A.

Berwerth, W., slime formation in preparation of vinegar, and its prevention, B., 72. Beryllium Corporation, beryllium alloys, (P.), B., 604.

See also Claffin, H. C., Ferkel, K. A., and Smith, J. K.

Berz, M. See Loesche, E. C.

Besborodov, M. A., and Lade, T. A., durability of quartz glass ignition vessels, A., 47. Zavjalov, N. D., and Zeliger, E. N.,

influence of cullet on reactions occurring during melting of glass, B., 594.

Bescoby, H. B. See Vickers, V. R. S.

Beskov, S. D., and Slizkovskaja, O. A., viscosity of sulphuric acid [solutions], A., 22. Besozzi, G. L., and Zanini, R., glutathione in blood and the organs in experimental anæmia, A., 1014.

Bespalko. See Muschkatblat, M. M. Bespolov, I. E., and Generalov, V. M., micro-analytical method for determining the hydrocarbon groups present in cracked gasoline, B., 1188.

Besselievre, E. B., modern sewage-treatment practice, B., 525.

Bessenov, I., Brownian movement of a linear lattice, A., 794.

Bessert, F., geological-petrographical investigation of potash deposits in the Werra region, A., 584.

Bessey, G. E., [determination of] free lime in cement; the ethylene glycol and the glycerol methods, B., 991.

Bessey, O.A. See Ellis, L.N

Best, C. H., and Channon, H. J., action of choline and other substances in prevention and cure of fatty livers, A., 234. Channon, H. J., and Ridout, J. H., choline and dietary production of

fatty livers, A., 370.

Best, J. C., Marsh, F. L., and Best Bros. Keene's Cement Co., gypsum products,

(P.), B., 1042.

Best, \hat{R} . \hat{D} . See Davis, L. L. Best, R. J., isoelectric precipitation of the tobacco mosaic virus complex, A., 761. Fluorescent substance present in plants. I. Production as a result of virus infection: applications of the phenomenon,

A., 1570.

Best Brothers Keene's Cement Co. See Best, J. C.

Best Foods, Inc. See Barradas, M. A., and Vahlteich, H. W.

Bestian, H. See Fries, K.

Bestugev, M. A. See Tschitschibabin, A. E.

See Uhlenbeck, G. E.Beth, E.

Bethe, H. A., calculation of eigenfunction of metallic electrons, A., 404. Masses of light atoms from transmutation data, A., 1171. Attempt to calculate the number of energy levels of a heavy nucleus, A., 1175. Capture and scattering of neutrons, A., 1314. See also Weekes, D. F.

Bethel, R. D. See Nichols, P. F. Bethell, F. H. See Isaacs, R. Bethke, R. M., Krauss, W. E., Record, P. R., and Wilder, O. H. M., comparative antirachitic efficiency of irradiated milk, yeast milk, and cod-liver oil, A., 256.

Record, P. R., and Wilder, O. H. M., provitamin-D from plant and animal sources, A., 255.

See also Gerstenberger, H. J., Hunt, C. H., Kick, C. H., and Krauss, W. E. Bethlehem Steel Co. See Nieman, H. W., Sharples Specialty Co., and Zehner, W. R.

Betterton, J. O., and Amer. Smelting & Refining Co., smelting scrap sloragebattery plates and lead-bearing materials of similar composition, (P.), B., 891. Chloridisation of metals, (P.), B., 1101.

Hanson, C. W., and Amer. Smelting & Refining Co., treatment of scrap storage-battery plates and lead-bearing materials of similar composi-

tion, (P.), B., 891. Lebedeff, Y. E., and Amer. Smelting & Refining Co., removal of residual debismuthising reagents in lead refining, (P.), B., 281. Bismuth, (P.), B., 505.

Betti, M., and Lucchi, E., dissociation constant of halogenated organic acids. III. and IV., A., 681, 1463.

and Manzoni, M., dissociation constant of halogenated organic acids. II., A., 564.

Bettinger, P., [rum] distillery in Mar-

tinique, B., 470. Bettini, T. M., chemical composition and nutritive value of lucerne at different stages of growth, B., 616.

Bettner, K. H., calculation of ink [and paint] grinding losses, B., 1217.

Betz, H., structure of electrolytic exide films, A., 1321.

See also Günther-Schulze, A. Betzold, M. F. See Rascher, C.

Beuchelt, H. See Bredereck, H.

Beuerle, R., drying of printing inks, B., 894. Beukema-Goudsmit, M., and Potjewijd, T., crude cresol. I. Examination by determination of the b.p. II. Evaluation by means of the nitro-product, B., 229.

Beuschlein, W. L., recovery of sulphur dioxide [in bisulphite pulp liquor manufacture], B., 833.

Beutelspacher, H. See Mitscherlich, E. A. Beutler, H., Brauer, G., and Jünger, H. O., direct preparation of HD by a chemical method, A., 944.

Deubner, A., and Jünger, H. O., absorption spectrum of hydrogen. II. The D state in the term scheme of hydrogen from photographs of H2 and D2, A.,

and Jünger, H. O., absorption spectrum of hydrogen. III. Auto-ionisation in the term $3p\pi^1\Pi_u$ of H_2 and its selection rules; ionisation energy of H2, A., 769. Predissociation and autoionisation in term series of the hydrogen (H₂) spectrum, A., 1167. Bond strength in the hydrogen molecule, A., 1185.

Beutler, R., blood-sugar of the bee (Apis

mellifica), A., 1134. Bevan, J. G. See Guggenheim Bros.

Bever, (Mlle.) B. See Briner, E. Bevis, R. E. See McIntyre, G. H.

Bewersdorf, influence of bitumen addition to tar, B., 177.

Bewick, H. L. See Stewart, J. K.

Beyaert, M., keto-enol tautomerism of ethyl acetoacetate, A., 1092.

Beyer, A., sulphonated [alcohol] products, (P.), B., 871.

Beyer, J. See Wagner, C.

Beyer, R., dyeing processes [and appar-

atus], (P.), B., 929.

and Beyer Res. Labs., treatment of aluminium, (P.), B., 155. Beyer Research Laboratories, Inc. See Beyer, R.

Beyerstedt, F., and McElvain, S. M., preparation and properties of keten diethyl

acetal, A., 588.

Beynon, J. H., Heilbron, I. M., and Spring, F. S., sterol group. XXV. Reactions of the isomeric ethers of cholesterol, A., 1105.

See also Hinkel, L. E.

Beynum, J. van, odour production by butyric bacteria, B., 392.

and Pette, J. W., sugar- and lactatefermenting butyric bacteria, B., 392. Beyschlag, B., electric-resistance coatings,

(P.), B., 1104.

Beythien, A., metallic apparatus for food industries and for cooking, B., 218. Interpretation of fat analyses, B., 557.

Beznák, A. von, and Perjes, J., correlation of hypertrophy of the adrenal cortex with bodily work and the vitamin-B content of the diet, A., 503.

and Toth, L. von, mechanism of action of fish serum on warm-blooded

animals, A., 241.

Bezssonoff, N., and Stoorr, E., determination of vitamin-C by Bezssonoff's method, A., 1159.

Vallette, A., and Sacrez, R., bromine index of the urine as indication of the normal physiological state, A., 229.

and Woloszyn, M., reversible oxidation of vitamin-C in biological media, A., 255. Variations of the power of vitamin-C in biological media to decolorise dichlorophenolindophenol, A., 255. Reversible oxidation of ascorbic acid demonstrated by assays with guinea pigs, A., 1160. Oxidation of vitamin-C, A., 1160. Reversible oxidation of vitamin-C in biological medium or pure solution, A., 1429.

See also Grootten, O., and Rohmer, P. Bezzi, S., organic substances of high mol. wt.; polybenzyl and its derivatives. II. Synthesis of the polymeride and its viscosity in varying solvents. III. Polynitrobenzyl, A., 1370.

and Sacconi, S., detection of acetic esters added to butter to mask

adulteration, B., 73.
Bezzubetz, M. K., and Schachova, N. G., preparation of indanthrene-blue RS, B., 537.

Bhabak, K. See Mukherjee, J. N.

Bhabha, H. J., creation of electron pairs by fast charged particles, A., 266. Scattering of positrons by electrons with exchange on Dirac's theory of the positron, A., 771.

and Heitler, W., passage of fast electrons through matter, A., 1312.

Bhagavantam, S., rotational Raman scattering in benzene, A., 137. Raman spectrum of deuterium. II. Intensity and polarisation characters, A., 268.

and Rao, A. V., deformation frequencies in the Raman spectra of linear molecules: acetylene, A., 546. Raman spectrum of acetylene, A., 663.

Bhagvat, K., proteins of Indian foodstuffs. VII. Globulins of the aconite bean (P. aconitifolius, Jacq.). VIII. Heatcoagulation of globulins from Vigna catiang, Walp., and P. aconitifolius, Jacq., A., 913.

and Srecnivasaya, M., non-proteinnitrogen of pulses, A., 913, 1165. Proteins of Indian foodstuffs. IX. Digestibility of globulins from cowpea and aconite bean, A., 913.

Bhagvat, N. N. See Paranipe, G. R. Bhagwat, M. R., and Combustion Utilities Corp., oil-soluble synthetic resin, (P.). B., 653.

Bhagwat, W. V., ultra-violet solution

light filters, A., 1223.

Bhargava, P. N. See Dhar, N. R.

Bhaskaran, T. R., mechanism of biological nitrogen fixation. II. Rôle of lime. III. Economy of carbon during fixation by Azotobacter chroococcum, Beij, A., 1422; B., 467. Rôle of organic matter in plant nutrition. XII. Production of organic acids during decomposition of cane molasses in swamp soil, B., 660.

Iyer, C. R. H., Rajagopalan, R., and Subrahmanian, V., determination of carbonate, organic carbon, and total nitrogen in the same sample [of

soil], B., 611.

and Subrahmanian, V., mechanism of non-symbiotic fixation of atmospheric nitrogen, A., 113. Mechanism of biological nitrogen fixation. Economy of carbon during fixation of nitrogen by mixed flora of the soil, IV. Fixation by mixed microflora of soil in presence of acid products of anaërobie decomposition of carbo-hydrates, A., 1422; B., 467. Nitrogen fixation in soil, B., 1115.

Bhatnagar, S. S., and Bahl, B. S., diamagnetism of the tervalent bismuth

ion, A., 18.

Kapur, A. N., and Kapur, P. L., magnetic study of colour changes in cobalt

chloride. II., A., 1460. and Mitra, N. G., critical examination of Pascal's value for the magnetic susceptibility of the CH2 group, A., 1057.

Nevgi, M. B., and Khanna, M. L., ionic susceptibilities of rubidium from its different salts in the solid and in the

dissolved state, A., 425.

Nevgi, M. B., and Mathur, R. N., polymerisation and diamagnetic suscepti-

bility, A., 786. Nevgi, M. B., and Sharma, R. L., diamagnetic susceptibilities of tin in the bi- and quadri-valent states, A., 928. Paramagnetism of the Mn++ ion in the S state, A., 1190.

Bhatnagar, T. S., crystalline structure and physicochemical properties in the col-

loidal state, A., 425.

Bhatta, B. See Ghosh, J. C.

Bhattacharya, A. K., influence of dilution on molecular refractivities of complex cyanides and cobaltammines, A., 1051.

Bhattacharya, D. K. See Prosad, K. Bhattacharya, R., shellolic acid, B., 510. and Verman, L. C., sulphitation of lac,

B., 206.

See also Verman, L. C. Bhattacharya, R. R. See Ray, S. K. Bhattacharyya, G. N., Indian vegetable oils. I. Viscosity and its variation with temperature. II. Dielectric constant and electric moment, B., 750, 1053.

Bhattacharyya, P. B., and Ganguli, K., physico-chemical properties of electrodialysed gels of silica, alumina, ferric hydroxide, and their mixture. I. Ion exchange, A., 796.

Bhattacharyya, S. C. See Ghosh, J. C. Bhattacharyya, S. K. See Ghosh, J. C. Bhojraj, M. G. See Meldrum, A. N.

Bhuyan, H. C., effect of light on diamagnetic susceptibilities, A., 148.

Bianchi, A. E. See Yriat, M.

Bianchi, V. See Butturini, L. Bibbins, F. E. See Burrin, P. L.

Biber, V., Vnukova, A., and Konschin, N., preparation and properties of aluminium periodate dodecahydrate, A., 1217.

Bibikov, N. N. See Maiofis, L. S. Bibischev, V. See Tschulkov, J. I.

Bichkov, S., rôle of erythrocytes in protein metabolism. IV. Effect of amino-acids on respiration of nuclear erythrocytes, A., 1017.

Bichowsky, F. von, improvement of pigments containing titanium, (P.), B.,

Bichowsky, F. R., and Gen. Motors Corp., refrigeration [conditioning of air], (P.), B., 49.

Bickel, A., blood-alcohol curve after ingestion of malt beer and sugar solutions, A., 223. Co-operation of plant and animal proteins in active and general metabolism, A., 629.

Sander, R., and Schilling, J., biological behaviour of clover- and potato-

proteins in metabolism, A., 1143.
Bickenbach, W., and Fromme, H., follicular hormone content of eclamptic blood, A.,

Bickford, C. A., Clarke, S. C., and Jahn, E. C., fir (Abies) oleoresins, B., 30.

Bickford, F. A. See Schumb, W. C. Bidaud, A. F., and Du Pont Rayon Co., changing the solubility characteristics of the lower fatty acid esters of cellulose, (P.), B., 366.

Biddulph, O., histological variations in Cosmos in relation to photoperiodism,

A., 392.

Bidet, A. See Woog, P.

Bidwell, E. H. See Shillito, F. H. Bidwell, G. L., and Riegel Paper Corp., [greaseproof or glassine] paper, (P.),

B., 736.

Biechler, J., aromatic N-substituted cyanoamides, A., 601. Relationship of the tricyanomelamines to polymerised dicyanoamides, A., 1525. See also Perret, A.

Biedermann, H. See Reimann, F.

Biekart, H. M., and Connors, C. H., greenhouse culture of carnations in sand, B., 292.

Bielenberg, W., spontaneous ignition of coal, B., 131.

Bielschowsky, P., and Thaddea, S., effect of respiration of pure oxygen on metabolism, A., 354.

Biely, J., and Chalmers, William, vitamin-A requirements of growing chicks. I. Use of "reference" cod-liver oil, B.,

Bien, R. P., crystal structure of heattreated tungsten filaments, A., 1326.

Bienenstock, M., Csáki, L., Pless, J., Sagi, A., and Sagi, E., mill products for alimentary purposes and paste goods and baked products from such milled products, (P.), B., 1232.

Bienka, E. J., and Szczepanski, C., influence of the nature of the stimulant on the quantity, chloride content, and $p_{\rm H}$ of the salivary secretion, A., 1536.

Bierbaum, H. E., and Gen. Salt Co., recovery of halogens [iodine from brine], (P.), B., 146. Purification of halogencontaining solutions, (P.), B., 834,

Bierbrauer, E., separation of granular material of all kinds in the form of pulp or sludge, (P.), B., 577.

and Popperle, J., preparation of coal by flotation, (P.), B., 916.

Bierhalter, W., constituents of binders for tar and bitumen fragments, B., 355. Practical significance of mechanical testing methods [for asphalts], B., 355.

Bierich, R., and Lang, A., changes in serum-proteins in cancer, A., 746. Relation between tumour-lipins and length of life of persons suffering from tumours, A., 1142.

Lang, A., and Rosenbohm, A., function of serum-proteins, A., 746.

Biermacher, O. See Dhéré, C. Biermann, H. H., mass absorption coefficients of monochromatic X-rays for cellophane, aluminium, selenium, silver, cadmium, tin, antimony, and tellurium up to 10 A., A., 1170.

Bierry, H., and Gouzon, B., spectrographic detection of the estrogenic hormone in human pregnancy urine, A., 644.

Gouzon, B., and Magnan, C., microdetermination of liver-glycogen, A., 499. Comparative determination of hepatic glycogen by the cupric and iodometric methods, A., 499. Determination of muscle-glycogen, A., 879.

Bierry, M., comparison between copper and iodometric methods for determining sugar in human milk, A., 1287.

Biert, J., boiler water, B., 1071.

Bietti, G., and Carteni, A., vitamin-C content of the ocular fluids and tissues with particular reference to the aqueous humour and the crystalline lens, A., 1159.

Bigelow, L. A., Sigmon, H. W., and Wilcox, D. H., jun., derivatives of β-sulphopropionic acid, A., 316.
 See also Miller, W. T., jun.
 Bigelow-Sanford Carpet Co., Inc., floor

coverings [of woven fabrics], (P.), B.,

Bigeon, M_{\cdot} , modern methods of treatment of boiler water and the elimination of scale, B., 623.

Bigg, P. H., accurate automatic mercury pipette, A., 815.

Biggs, B. S., chemical nature of extracts from a bituminous coal, B., 481. Relation of extract to residue in a bituminous coal, B., 770.

Biggs, L. R. See Brit. Thomson-Houston Co.

Bigiavi, D., and Albanese, C., reduction of azoxy-compounds in relation to that of diazonium derivatives, A., 65.

Bigourdan, P. E. See Souviron, P. F. J. Bigwood, E. J., Thomas, J., and Herbo, H., inhibiting action of hydrogen cyanide on biological oxidations, A., 519. Action of carbon monoxide on indophenol-oxidase in milk, A., 519. Action of cyanides on the purine dehydrogenase of milk, A., 1554.

Bihar and Orissa, Department of Agriculture, report of the Agricultural Chemist, Bihar and Orissa, on nature of sand deposits in earthquake-affected areas, B., 383. Preparation of artificial farmyard manure and organic composts as suppliers of organic matter to soils, B., 384.

Bihlmaier, K., determination of fineness of silver alloys by streak test, B., 1043.

Billmann, E., Jensen, K. A., and Bak, B., 2-deuterocamphane, A., 1257.

Jensen, K. A., and Knuth, E., optically active 2-deuterocamphane, A., 855.

Bijl, A. See Keesom, W. H., and Michels,

Bijlsma, U. G., Le Heux, J. W., and Toxopeus, M. A. B., relationship between iodine content of diet and thyroxine content of blood, A., 645. See also Böeseken, J.

Bijvoet, J. M., chemical reaction and atomic theory, A., 683. Effect of isotopy on the position of chemical equilibrium, A., 796.

Bikerman, J.J., moving-boundary method of measuring cataphoresis, A., 1462.

Bikova, S. V. See Lobanov, D. I.

Bilbel, E. See Malachowski, R. Bilde, T. E. D., mincing or grinding

machines, (P.), B., 129. Bildermann, A. See Abel, E.

Bilger, E. M., and Hibbert, H., mechanism of organic reactions. IV. Pyrolysis of esters and acetals, A., 821. Bilger, L. N. See Robbins, R. C.

Bilik, I. See Korolev, A.

Biliński-Tarasowiez, M. See Malachowski,

Bilinsky, S. See Zener, C.

Billberg, A., automobiles operating with producer gas, B., 402.

Billeter, W., absolute intensity of the zinc resonance line 2139 Å. and life of $2^{1}P_{1}$ state of zinc, A., 2.

Billheimer, E. C., and Nitardy, F. W., stabilisation of "milk of magnesia" by citric acid, B., 474. See also Deripe, F. N. van.

Billi, A. See D'Arbella, F.
Billiet, V., uranotile, A., 1089.
and De Jong, W. F., kasolite, A., 1227. See also Schoep, A.

Billig, K., association of liquids at the b.p., A., 411.

Billimoria, M. C. See Pearsall, W. H. Billing, H., step compensator for the Jamin interference refractometer when illuminated with white light, A., 1481.

Billinger, R. D., early zine works in the Lehigh Valley, B., 549.

Billinghame, A. V. See Billinghame, W. E. Billinghame, W. E., emulsifying and similar agents, (P.), B., 487.

and Billinghame, A. V., degumming of vegetable fibres, (P.), B., 269.

Billinghurst, P. E., apparatus for treatment of [alkali-containing silicate] ores, (P.), B., 494.

Billings, H. P., Hurst, D. A., and Radio Corp. of America, emulsions of synthetic resins, (P.), B., 511. Synthetic resin, (P.), B., 511. Plasticised synthetic resin, (P.), B., 511.

Billington, R. M. See MacGregor-Morris,

Billiter, J., peculiarities in formation of metallic deposits, B., 328. Position and prospects of technical electrolysis, B., 891. Elimination of salts from water, B., 910.

Billner, K. P., concrete, (P.), B., 596. Bilterys, R., and Gisseleire, J., f.p. of organic compounds. XV. Esters of the fatty acids, A., 149.

Biltz, H., modern purine chemistry, A., 1270.

Biltz, M., and Eggert, John, determination of colour-sensitivity of negative material for pictorial exposures, B., 1131.

Biltz, W., energy and space problems in formation of intermetallic compounds, A., 24.

[with Hülsmann, O., and Eickholz, W.], volume-chemical evidence as to existence of orthonitric acid, A., 946.

[with Voigt, A., Meisel, K., Weibke, A. and Ehrlich, P.], affinity. LXIX. System nickel monosulphide-nickel di-

sulphide-sulphur, A., 1204. and Laar, J., affinity. LXVII. Tensi-metric analysis of higher palladium

sulphides, A., 1204.

and Wiechmann, F., affinity. LXVIII. System manganese-sulphur; structure and synthesis of hauerite (MnSa), A., 1204.

Sco also Juza, R., Wiehage, G., and Wrigge, F. W.

Binder, O., hydrolysis of solutions of cupric sulphate, A., 38. Decomposition of copper sulphate pentahydrate by heat, A., 172. Basic copper sulphates, A., 438.

and Spacu, P., action of malonic acid on dichloro - trans - diethylenediaminecobaltic chloride, A., 948. Substitution of water for chlorine in the dichlorotrans-ethylenediaminecobaltic ion, A., 948.

Binder, W. O. See Dow Chem Co.

Binét, I., and Krasznai, I., determination of rate of sedimentation of blood corpuscles; effect of globulin solutions on

the rate in vitro, A., 354.
Binet, L., and Barret, S., blood-glutathione and pulmonary respiration, A., 875.

and Burnstein, M., action of the lung on polypeptides: application to the study of scalds, A., 366.

Képinov, L., and Weller, G., glutathione in tissues of the hypophysectomised dog: evidence for a pituitary-thyroid and pituitary-testicular association, A., 117.

and Lanxade, J., adrenaline in the adrenal glands of dogs under low atmospheric pressures, A., 1158.

and Marek, J., hypoglycæmia as a result of agaric (Amanita phalloides) poisoning, A., 893.

and Weller, G., liver and glutathione, A., 356. Total glutathione in tissue: determination and distribution in normal animals, A., 623.

Binet, V. See Darapsky, A. Bingham, E. C., and Coombs. C. E., fluidity and molecular complexity, A., 1331.

and Hatfield, J. E., association of substances which are solid at ordinary temperatures [determined] by the fluidity method, A., 279.

Bingham, W. S., welding or fusing bar, (P.), B., 1101.
Bingley, W. M., modern chlorination [of

water], B., 526.

Bingold, K., fate of hamoglobin in the organism, A., 495.

Binnie, R. T. See Blairs, Ltd.

Binnington, D. S., and Geddes, W. F.. automatic recording balance, A., 306. Experimental durum milling and macaroni-making technique, B., 1229.

Binns, F. W., and Virginia Smelting Co., [basic] chromic salt [sulphate] solutions, (P.), B., 274. Basic zinc formaldehyde sulphoxylates, (P.), B., 973. Alkali-metal formaldchyde-sulphoxylates, (P.), B., 973. Bleaching of mineral matter, (P.), B., 988.

Binz. A., technical application of urine, B., 631. Manufacture of halogenomethanesulphonic acids and their salts, (P.), B., 972.

and Maier-Bode, H., arsenic and iodine compounds of the pyridine series, A.,

1121.

and Schickh, O. von, pyridine. XX. Pyridine-3-arsinic acid and related

compounds, A., 1004.
Biocca, P., "Donaggio reaction" in diabetes, A., 752.

Bioy, E. See Loeper, M.

Biquard, (Mlle.) D., action of mixed organomagnesium derivatives on benzaldehydesemicarbazone, A., 725. Action of mixed organomagnesium derivatives on acetophenone semicarbazone, A., 739. Spectral study of phenylhydrazine and derivatives, A., 775. See also Ramart-Lucas, (Mme.) P.

Biquard, P. See Langevin, A.

Biquard, Pierre, diffusion of ultrasonic waves in liquids, A., 417. Absorption of ultrasonic waves by liquids, A., 1330. Birch, C. A., jaundice due to phenobarbital, A., 627.

Birch, R. E. See Harbison-Walker Refrac-

tories Co., and Harvey, F. A.

Birch, S. F., and Docksey, P., glass apparatus for handling low b.p. liquids, A., 447.

and Stansfield, R., motor fuels; effect of sulphur compounds on lead response, B., 775.

See also Anglo-Iranian Oil Co.

Birch, T. W., György, P., and Harris, L. J., vitamin- B_2 complex; differentiation of antiblacktongue and "P.-P." factors from lactoflavin and vitamin-Ba ("rat pellagra" factor), A., 254. and Mapson, L. W., rôle of adenylic acid

in vitamin-B₁ deficiency, A., 1159. Birch-Hirschfeld, L., analysis of hydrophile colloids in B. paratyphosus colonies, A., 898.

Birchard, W. H. See Stevens, C. F. B.Birchy, C., and Hewlett, S. D., sound-

absorbing material, (P.), B., 373. Birckenbach, L., Goubeau, J., and Krall, II. II., ψ-halogens. XXXI. Detection of iodine-mixed halogens by measurements of the rate of reaction between cyclohexene and iodine in the presence of salts of the heavy metals, A., 435.

and Meisenheimer, K., ψ -halogens. XXXII. Reaction of the silver salts of monobasic organic acids with iodine in the presence of benzene, A., 704.

Bircumshaw, L. L., and Preston, G. D., oxidation of metals. III. Kinetics of oxidation of molten tin, A., 569.

See also Preston, G. D.

Bird, A. L., and Bauer, S. G., measurement of quality of high-speed oil engine fuels, B., 1029.

Bird, E. W., Sadler, H. W., and Iverson, C. A., preparation of a non-desiccated sodium cascinate sol, and its use in ice eream, B., 73.

Bird, J. C. See Standard Oil Development Co.

Bird & Son, Inc. See Beasley, M. R. Birdsey, C. R. See Turner, G. M.

Birge, E. A. See Jnday, C.

Birge, R. T., value of the electronic charge, A., 133. Interrelationships of e, h/e, and e/m, A., 404.

Birge, R. T., and McMillan, E., value of the electronic charge, A., 1046.

Birkby, H. S. See Internat. Hydrogenation Patents Co.

Birkbys, Ltd., and Buck, A. J., potentially reactive liquid coating compositions, (P.), B., 560. Artificial resinous substances, (P.), B., 1007.

Birkeland, J. M., serological studies of plant viruses, A., 395.

Birkett, L. S., crystallisation of sucrose

from cane juices, B., 424.

Birkinshaw, J. H., Oxford, A. E., and Raistrick, H., biochemistry of microorganisms. XLVIII. Penicillic acid, a metabolic product of Penicillium puberulum, Bainier, and P. cyclopium, Westling, A., 456. and Raistrick, H., biochemistry of micro-

organisms. XLIX. Palitantin, a metabolic product of Penicillium palitans, Westling, A., 729.

Birmingham, J. F., jun., and Wood, W. H., apparatus for making spectral flames of the alkali and alkaline-earth metals, A., 954.

Birmingham, T. F., and Superheater Co., welded article, (P.), B., 843.

Birmingham Electric Furnaces, Ltd., Lobley, A. G., and Hartley, H. J., protective [desulphurised] gases for use in heat-treatment of metals, (P.), B., 1102.

and Robiette, A. G. E., heat-treatment of iron, steel, and alloy steels, (P.), B.,

and Thomlinson, F., apparatus for heattreatment of metals, (P.), B., 503.

Birnie, F. R., storing and preserving fruit and vegetables [in scaled containers], (P.), B., 474.

Birtley Co., Ltd. See Bramwell, I. L. Birukov, N. D. See Makarieva, S. P.

Birus, K., structure of the Rayleigh radiation of liquids, A., 1180.

Bisbey, B., and Sherman, H. C., extraction and stabilities of vitamin- B_1 and of lactoflavin, A., 253.

Biscaro, G., and De Caro, L., chemical composition and nutritive value of wheat- and maize-germ flour, B., 390.

Bischof, F. See Stahl, L.

Bischof, W. See Maurer, E. Bischoff, F., effect of divided dosage of gonadotropic extracts in the immature male rat, A., 1428. See also Maxwell, L. C.

Bischoff, C. See Micheel, F.
Biscoe, J., Herčík, F., and Wyckoff,
R. W. G., size of antibodies, A., 1136.
Pickels, E. G., and Wyckoff, R. W. G.,
light metal rotors for the molecular ultra-centrifuge, A., 956.

Biseo, L., treatment of waste rubber for recovery of other products, (P.), B., 657. Bishop, F.L., and Amer. Window Glass Co.,

laminated glass, (P.), B., 694.

Bishop, G. See Ferguson, W.S.
Bishop, H. B., manganese-sulphur compound, (P.), B., 642. Bishop, H.J. See Smit, B.

Bishop, J., benzol extraction at gasworks, B., 484.

Bishop, L. See Eckles, C. H.

Bishop, L. R., effect of variety, soil, and season on barleys and malts of the seasons 1932 and 1933, B., 166. New light on malting and brewing,

See also Thorne, R. S. W.

Bishop, O. M. See Du Pont de Nemours & Co., E. I.

Bishop, W. B., and Staley Manufg. Co., A. E., soya-bean flour, (P.), B., 570.

Bishop, W. B. S., and Dwyer, F. P., use of hydrogen peroxide and amyl acetate for micro-determination of chromium,

Bishop & Co. Platinum Works, J. See

Hickey, G. M.
Biskind, G. R., and Glick, D., histochemistry. V. Vitamin-C concentration of the corpus luteum with reference to the stage of the estrus cycle and pregnancy, A., 530. Vitamin-C in an æstrin-producing ovarian tumour, A., 1429.

See also Glick, D. Biskind, L. H., therapeutic application of phenylmercuric salts; use of basic phenylmercuric nitrate in gynacology, A., 115.

Bisko, J., and Zak, H., syntheses in the sugar series. II. Derivatives of cello-

biose, A., 193. Biskupski, S., analyses of phosphorite from the culm formation of the Swietykrzyż mountains, A., 448.

Bisonit Ges.m.b.H., and Gullich, K., [pre-liminarily moulded] multi-coloured patterned articles, (P.), B., 207.

Bissell, W. T., Potter, T. W., and Journal Box Service Corp., removal of foreign matter from used journal-box waste oil, (P.), B., 970.

Bissenok, E. P. See Stender, V. Bissiri, A. A. See Scott, W. W. See Stender, V. V.

Bisson, C. S. See Porter, D. R.

Bissonnette, T. H., and Csech, A. G., egg [production] by pheasants and quall induced by night lighting, B., 856.

Biswas, H. G., and Guha, B. C., vitamin- B_1 , $-B_2$, and -C values of country liquor prepared from the date, B., 1124. Bitkova, A. N. See Schujkin, N. I.

Bito, K., and Ishida, S., chromium-molybdenum steels as substitutes for nickelehromium steels, B., 548. Bitskei, B. See Bitskei, J.

Bitskei, J., iodometric determination of sugar, B., 711.

and Bitskei, B., burette with automatic zero adjustment, A., 1084. Bitter, F., magnetisation of imperfect

crystals, A., 17.
Bitti, P. R., "Donaggio phenomenon" in the urine of horses in febrile conditions,

Bitting, L. W., and Maring, W. D., solid refrigerant, (P.), B., 912.

Bittins, C. See Vorländer, D.

Bixby, K. R., and Midland Electric Coal

Corp., apparatus for drying loose material, (P.), B., 223.

Bixler, M. E. See Rodebush, W. H.

Bizard, G. See Lambret, O.

Bizette, H., electrical birefringence of compressed nitrogen, A., 410.

and Belling, T., magnetic birefringence of nitric oxide, A., 140.

and Tsai, B., magnetic rotatory power of nitrie oxide, A., 551. Variation with temperature of the magnetic birefringence of nitric oxide and oxygen under pressure, A., 1051.

Bizot, M. G. M. G., photographic reproduction, (P.), B., 300.
Bjergaard, K. P., and Schou, S. A.,

structure of œstrin in alkaline solution, A., 388.

Bjerge, T., induced radioactivity of short period, A., 773. Radio helium, A., 1315.

and Broström, K. J., β -ray spectrum of radio-helium, A., 1315.

Bjerrum, J., copper catalysis oxidation of thiol acids as a basis for the micro-determination of copper,

and Henriques, V., determination of copper in plasma and blood-cells by Warburg's cysteine oxidation method, Α., 747.

Björnståhl, Y., extinction of mesomorphic liquids in a magnetic field, A., 267. Effect of an electric field on viscosity of colotropic liquids, A., 1331.

Bjorkman, E. B., production and employment of a concrete admixture, (P.), B., 1096. Light-weight porous concrete,

(P.), B., 1096.

Bjorksted, W. See Whitaker, M. D. Blabolil, M. See Křepelka, V.

Blacet, F. E., and Roof, J. G., photochemical stability of crotonaldehyde, A., 300. Photolysis of aliphatic aldehydes. III. Hydrogen from acctaldehyde, A., 437.

Black, A., and Sassaman, H. L., antirachitic activity for chicken and rat of vitamin-D from various sources,

A., 1162.

See also Forbes, E. B., and Greene, R. D. Black, B. N. See Smith, L. J.

Black, C. A., and Ric-Wil Co., thermonon-conducting water-repellent packing material, (P.), B., 540.

Black, C. G., determination of coal grindability by the ball-mill method, B., 432.

Black, E. A. See Weber, C. G.

Black, J. C., and Gasoline Products Co., treatment of oils, (P.), B., 535. Refining of cracked gasoline, (P.), B.,

Black, L. G., Rich, M. M., and American Potash & Chem. Corp., cooling [of salt solutions], (P.), B., 145.

Black, L. V., effect of rate of loading on breaking strength of glass, B., 989.

Black, (Miss) M. M., approximate numerical values of the atomic field and radial wave functions of the silver ion, A., 1312.

Black, N. F. See Standard-I.G. Co. Black, W. A., ultra-violet irradiated amœbæ, A., 382.

Blackburn, W. H. See Dent, F. J. Blackett, P. M. S., ultra-radiation, A., 133. Energy of cosmic rays. I. Electro-magnet and cloud chamber, A., 1046.

and Brode, R. B., energy of cosmic rays. II. Curvature measurements and the energy spectrum, A., 1046.

Blackie, A., sulphuric acid hygrometer, A., 182.

Ockleford, C. W., and Cawley, C. M., thermal and electrical aspects of converters for the hydrogenation process, B., 580.

Blackie, J. J. See Barger, G. Blackman, G. E., influence of temperature and available nitrogen supply on growth of pasture in the spring, B., 1223.

and Templeman, W. C., eradication of weeds in cereal crops by sulphuric acid and other compounds, B., \$53.

Blackman, V. H., light, temperature, and the reproduction of plants, A., 1034.

Blackshaw, H., azoic dyes from the dyestuff manufacturer's viewpoint, B., 489. Application of azoic dyes to textiles, B., 691.

See also Imperial Chem. Industries.

Blacktin, S. C., combustion experiment, A., 816. Apparatus for use in collection, observation, and determination of suspended dust, particles, spores, bacteria, etc., as impurities in air, gases, or other fluids, (P.), B., 1073.

Blackwood, $J.\ H.$ See Aylward, $F.\ X.$ Blackwood, $O.\ H.$ See Koppers Co. of

Delaware.

Blagg, G. E. See Michigan Steel Casting Co. Blagodarov, M. L., activated bleaching clays from Trans-Caucasian raw material, B., 626. Evaluation of bleaching earths used in the Russian

petroleum industry, B., 1028. and Djatschkova, E. A., causes for the unsatisfactory sodium test of oils made by contact filtration, B., 676.

Blagonravova, A. A. See Drinberg, A. J.,

and Pamfilov, A. V.
Blagovestova, N. P. See Gasenko, G. G.
Blagovestschenski, A. V., and Prosorovskaja, A. A., effect of humic acid on

assimilation in plants, A., 122. and Yurgenson, M. P., changes of wheat proteins under the action of flour and

yeast enzymes, A., 244. Blagovestschenski, V. A., course of photo-

synthesis [in plants] on the mountains of Pamir, B., 246.

Blair, A. W., Prince, A. L., and Winterberg, S. H., influence of soil reaction on yield and feeding value of hay, B., 293.

Blair, C. M., jun. See Badger, R. M.

Blair, D. A. See Blairs, Ltd.
Blair, F. O. See Standard Oil Co.
Blair, G. W. S., and Morland, D., physical

test for ling honey. B., 1124. See also Halton, P.

Blairs, Ltd., and Binnie, R. T., crystallisers suitable for sugar massecuite, (P.), B., 1226.

and Blair, D. A., evaporating and concentrating apparatus, (P.), B., 624. Blake, J. T. See Boggs, C. R.

Blane, P., modification of Pregl's apparatus, permitting the carrying out of a series of micro-determinations of nitrogen, A., 955.

Blanchard, L., protein, lipin, and total cholesterol content of the serum of the normal cat, A., 356. Urine of the nor-

mal cat, A., 362. Blanchard, L. S. See Dunlop Rubber Co. Blanck, E., twelve-year trials of the nutrient removal by plants from soils manured with organic and with mineral fertilisers, B., 466.

Heukeshoven, W., and Schorstein, H., influence of nutrient ratios of fertilisers on oats and barley. II., B., 467. and Oldershausen, E. von, recent and

fossil red earth (terra rossa) form-

ation, A., 50.

and Schorstein, II., most suitable nutrient ratio for lime-bearing nitrophoska, B., 210. Influence of nutrient ratios of fertilisers on oats; phosphate utilisation, B., 467. Manurial action of a burnt siliceous dolomitic limestone, B., 1011. Changes in Istrian and Dalmatian red-earth soils due to cultivation, B., 1222.

Blanck, H. C., and Wolf, K. L., heats of combustion and sublimation, A., 682.

Blanco, J. R. See Lora y Tamayo, M.Bland, F. O. S., preservation of perishable articles by freezing, (P.), B., 1184.

Bland, N., colour testing and recording, B., 243.

Blank, I. H., and Arnold, W., action of radiation in the extreme ultraviolet on Bacillus subtilis spores, A., 383. Inhibition of growth of B. subtilis by ultra-violet-irradiated carbohydrates, A., 383.

and Kersten, H., inhibition of growth of Bacillus subtilis on modified extract agar by X-irradiation of the medium, Ã., 114.

Blanksma, J. J., and Wackers, (Miss) M. L., derivatives of (A) NN-2:4-di-[and] (B) NN - 2:4:6 - tri - nitrophenyl-

methylhydrazine, A., 1103.

Blaschko, H., and Schlossmann, H., decomposition of adrenaline in tissues, A., 386.

Blasdale, W. C., and Parle, W. C., determination of bismuth as phosphate, A.,

Blatherwick, N. R., Bradshaw, P. J., Cullimore, O. S., Ewing, M. E., Larson, II. W., and Sawyer, S. D., metabolism of d-xylose, A., 630.

Blatt, A. H., hydroxypyrrole nitrones. 11. A., 733. Principle of vinylogy and the effect of orthosubstituents on reactivity of benzene derivatives, A., 1370. Hydroxypolyketones. III. Benzoylformoin, A., 1524.

and Barnes, R. P., action of alkali on acylated ketoximes. II. Steric hindrance to alkaline hydrolysis, A., 1511.

and Hawkins, W. L., hydroxypolyketones. II. Dibenzoylcarbinol, A., 337. and Russell, L. A., action of alkali on acylated ketoximes. III. Hydrogen bond formation in derivatives of ohydroxybenzophenoneoximes, A., 1511. Blatterman, J. M. See Marker, R. E.

Blau, A., relative values of caffeine and hypertonic glucose and saline solutions in reducing cerebrospinal fluid pressure, A., 892.

Blau, F. See Gen. Electric Co. Blau, H. H., Silverman, A., and Hicks, V., opal glass. II. Silicon, calcium, sodium, aluminium, oxygen, and fluorine series, B., 454.

Blau, M_{\cdot} , and Wambacher, H_{\cdot} , mechanism of desensitisation of photographic plates. II., A., 37. Desensitising effect of chloride and bromide solutions on photographic emulsions impregnated with dyes, B.,

Blaufuss, G., filter, (P.), B., 528.

Blaw-Knox Co., effecting intimate contact between liquids and gases, (P.), B., 817. See also Chandler, W. P., jun., Chiquoine, J. E., Dorfan, M. I., and McCrery, H. E.

Blaw-Knox, Ltd., effecting intimate contact between liquids and gases, (P.), B.,

Blazey, C., electrical resistance of copper and some copper alloy wires, B., 236. Blazso, A., sulphur metabolism. I. and

II. Sulphur and protein metabolism in infants and children, A., 914, 1413.

Bleakney, W., properties of hydrogen isotopes as revealed by the massspectrograph, A., 5.

Blewett, J. P., Sherr, R., and Smoluchowski, R., mass-spectrograph analysis of beryllium, A., 1312.

Bleakney, W., Harnwell, G. P., Lozier, W. W., Smith, P. T., and Smyth, H. D., production and identification of helium of mass three, A., 301. and Hipple, J. A., jun., oxygen isotopes.

A., 1312,

and Smith, L. G., ionisation probability

of He++, A., 539. See also Hipple, J. A., jun., Sampson,

M. B., and Smyth, H. D.

Blechschmidt, H., [halogenated rubber] insulation of electrical conductors, (P.),

B., 647. Blegen, E. See Hansen, Klaus.

Bleick, W. E. See Ostrofsky, M. Blekkingh, J. J. A., jun. See Cohen, E.

Blengsli, H. L. See McKee, R. H.

Bleser, D. C., hop extractor, (P.), B., 614. Blet. G., Stark effect on absorption bands of nitric oxide, A., 775.

Blewett, J. P., mass spectrograph analysis of bromine, A., 1043.

and Jones, E. J., filament sources of positive ions, A., 1312.

and Sampson, M. B., isotopic constitution of strontium, barium, and indium, A., 772.

See also Bleakney, IV.

Bley, R. S., and North Amer. Rayon Corp., hydrogen sulphide, (P.), B., 1039. Viscose and cuprammonium cellulose spinning solutions and [soft-lustre] pro-

ducts thereof. (P.), B., 1201.

Bleyer, B., Diemair, W., Fischler, F.,
Täufel, K., Arnold, F., and Thaler, H., physiological importance in nutrition of methods of preparation of foodstuffs. I. Influence of roasting with coffee, coffee substitutes, and similar products, A., 1415.

Blicke, F. F., and Patelski, R. A., 4'hydroxy-2-p-hydroxybenzoylbenzophenone, A., 474. Action of sulphuric acid on diarylphthalins. I. and II., A., 481, 722.

Blish, M. J., and Sandstedt, R. M., definition and measurement of "flour strength" as an inherent property of wheat, B., 215.

Bliss, A. R., jun., calcium compounds in dentistry, A., 1018. Absorption of drugs

from human skin, A., 1291.

Bliss, C. I., and Broadbent, B. M., comparison of criteria of susceptibility in response of Drosophila to hydrocyanic acid gas. I. Stupefaction time and mortality, B., 1117.

Bliss, D. E. See McNew, C. L.

Bliss, L. G., titanium minerals in weldingrod coatings, B., 413.

Bliss, S., refection in the rat; preparation of basic materials for deficiency diets, A., 1409.

Blix, G., primary calculi of the smaller intestine, A., 878. Carbohydrate groups of submaxillary mucin, A., 879. and Englund, G., vitamin-D in Baltic

herring, A., 1431. and Rydin, H., occurrence of ergosterol

and vitamin-D in reindeer lichen, A.,

Rydin, H., and Englund, G., vitamin-Din Baltic herring, A., 1431.

Bljacher, J., Obryadchikov, S. N., Smidovich, E., and Chaiman, S., light cracking

of heavy oils, B., 227.

Bloch, B. M., and Norrish, R. G. primary photochemical reactions. VIII. Quantum yield of phetolysis of methyl n-butvl ketone, A., 38.

Bloch, E. See Bloch, L. Bloch, F., continuous γ -radiation accompanying the β -decay, A., 1172. Magnetic scattering of neutrons, A., 1173. and Gamow, G., probability of γ-ray emission, A., 1172.

and Møller, C., recoil by β -decay, A., 131. Production of neutrons by annihilation of protons and electrons according to Fermi's theory, A., 131.

and Ross, P. A., radiative Auger effect,

A., 1312.

Bloch, F. G., temperature indicating and -controlling device, (P.), B., 175.

Bloch, I., pure white sugar, (P.), B., 1227.

Bloch, K., phosphorus-containing lipins from human tubercle bacillus, A., 1028. Bloch, L., and Bloch, E., extreme ultra-violet spectra of zine aud cadmium,

Bloch, E., and Piaw, C. S., emission spectrum of the selenium oxide ScO,

Bloch, M_{\cdot} , and Dufay, J_{\cdot} , analysis and interpretation of the nebular spectrum of Nova Herculis, A., 262.

Bloch, O. See Medvedev, S.

Olaf, fine-grain developers, B.,

Bloch, W., and Pinösch, H., conversion of histidine into histamine in the animal organism, A., 885.

Bloch, Walter, ceramic electric-insulating material, (P.), B., 606.

Blochinzev, D., deuteron theory, A., 543. and Schechter, S., life period of particles in the adsorbed state, A., 1196.

Block, use of "economy metals" in chemical apparatus construction, B., 327.

Block, D. J., and Beecher, F., argentochrome tetramethylthionine, (P.), B., 1130.

Block, R. J., basic amino-acids of human skin, A., 879.

Cowgill, G. R., and Dannenberg, S. J., isolation of water-soluble vitamins, (P.), B., 524.

See also Jackson, R. W. Block, IV. D. See Calvery, H. O.

Blodgett, K. B. See Langmuir, I. Blok, C. J., and Wee, H. J. A. ter, making extracts and tinctures, B., 1127.

Blokker, P. C., electrical conductivity of solutions of electrolytes in methyl alcohol and acetone at high temperatures, A., 291. Viscosity of methyl alcohol and acetone above their b.p., A., 558.

Blom, A. V., action of free fatty acids in oil paints, B., 336. Formation of solid oil films, B., 558. Theory of oil drying. I. Topical structure of the oil molecule.
II. Film-formation process, B., 558.
Testing [porosity of] chlorinated rubber-lacquers, B., 1055.
Topical structure of oil molecules and the filming process, B., 1055.

Blom, J. [with Prin, P., Bak, A., and Jacobsen, J.]. determination of foam [on beer]. II., B., 248.

Bak, A., and Braae, B., enzymic degradation of starch, A., 1096.

and Prip, P., [determination of] foam [on beer]. I., B., 214.
Blom, J. W. See De Haas, W. J.

Blomfield Engineering Co., Ltd., and Durant, H. T., drum filters or thickeners, (P.), B., 304.

Blomquist, B. E. See Althausen, T. L. Blomqvist, G. See Freudenberg, K.

Blondel, F., and Bondon, J., mineralisation of the Precambrian of the Anti-Atlas, A., 586. Distribution of the chief mineral deposits of Morocco, A., 701.

Blondiau, L. See Soc. Anon. des Ciments

de Thieu.

Blood, J. M., and Rowlands, A., chlorine content of milk as an indication of mastitis, B., 616. Bloodgood, D. E., digestion of garbage

with sewage sludge, B., 573.

Bloodgood, M. A. See Kharasch, M. S.

Bloom, A., and McNabb, W. M., titration of silver with potassium iodide; ceric ammonium sulphate and starch as indicators, A., 951.

See also Rubin, N.

Bloomenthal, S., and Radio Corp. of America, resistor, (P.), B., 606. See also Marconi's Wireless Telegraph

Bloomfield, A. L., theory of distillation as applied to essential oils. I .-- VI., B., 523, 1017, 1128, 1233.

Bloomfield, J. J., dust procedures in air analysis: sampling and analysis of industrial dusts, B., 478.

Bloor, W. R., cholesterol content of muscle, A., 1139.

Bloschtein, F. I. See Vasilevski, V. V.

Blotner, H., effect of pitocin, pitressin, and antuitrin on fat tolerance tests, A.,

Blott, J. F. T. See Colas Products, Ltd. Blount, A. L., and Union Oil Co. of California, gum inhibitor [for liquid hydro-

carbons], (P.), B., 917.
See also Hoots, H. W., and Merrill, D. R.

Blount, B. K., phenyl- ψ -pelletierine, A., 488. Apparatus for recrystallisation of small amounts, A., 698. Chemistry of insects. II. Woolly aphis and white pine chermes. III. Wax of Psylla buxi, A., 1137, 1286.

and Crowfoot, (Miss) D. M., veratrine alkaloids. III. Preparation of cevanthrol, and X-ray crystallographic examination of cevanthrol and cev-

anthridine, A., 742. and Weissberger, A., preparation of accnaphthyleno glycol and condensation reactions of naphthalene-1:8-

dialdchyde, A., 726.

Blow, C. M. See Garner, T. L. Bloxam, A. G. See Soc. Chem. Ind. in

Bloxam, H. P., simple thermo-regulator, A., 45.

Bludworth, J. E. See Thompson, C. L.

Blue, R. D., and Mathers, F. C., aluminium plating from organic baths, B., 552. Electrodeposition of aluminium alloys,

Blue, R. W. See Giauque, W. F. Bluemner, E., colloidal fuel, (P.), B., 52, 627.

Blum, E., Jarmoschkevitsch, A. I., and Jakovtschuk, A. I., proteolytic enzymes of human embryos at different stages of development, A., 1025.

Blum, W., and Brenner, A., Mesle's chord method for measuring thickness of

metal coatings, B., 415.

Strausser, P. W. C., and Brenner, A., corrosion-protective value of electrodeposited zine and cadmium coatings on steel, B., 414.

Blum-Bergmann, (Mrs.) O. See Bergmann, E., and Weizmann, C.

Blumberg, H., and Scott, T. F. McN., spectrographic micro-method for detection of pathological lead in peripheral blood, A., 93. Spectrographic determination of blood-lead; its value in diagnosis of lead poisoning, A., 1295. Plasma-cell partition of blood-lead in clinical lead poisoning, A., 1295.

Blumberg, H. S., and Kellogg Co., M. W., are welding electrode, (P.), B., 1000. Blume, K., intensive purification of gas by

active carbon, B., 1187.

Blume, O., apparatus for treating molten material [with other fluids], (P.), B.,

and Krupp, A.-G., F., apparatus for treating molten material, (P.), B., 576.

Blume, W., and Fischer, F. W., absorption of salicylic acid after intra-muscular injection; absorption by the bladder,

and Plum, K., absorption of intrapleurally and intraperitoneally injected salicylic acid, A., 105.

Blume, W. A., and Amer, Brakeblok Corp., friction elements, (P.), B., 82.

Blumenthal, D., immunological study of reduction of disulphide groups in proteins, A., 622.

Blumenthal, Maurice, and Casper, disposal of garbage, etc., (P.), B., 958.

Blumenthal, Mieczysław, mechanism of reactions botween solid phases and a gascous phase, A., 434.

See also Centnerszwer, M.
Blumlein, A. D., and Holman, H. E., insulated electrical conductors, (P.), B., 748. Insulated electrically conductive screens for use in cathode-ray tubes, (P.), B., 748.

Blumstengel, G. C. See Bartels, E. L. Blunck, F. H. See Hurd, C. D.

Blunk, H., purification of sewage or of gases containing air or oxygen, (P.), B., 622.

Bluth, M. See Büssem, W. Blyth, C. E., dehydration of plastic earths,

(P.), B., 129.
Blyth, F. G. H., basic intrusive rocks associated with the Cambrian inlier near Malvern, A., 700.
Blythe, W. E., and Driver-Harris Co.,

heat-treating furnaces, (P.), B., 47.
Blythe & Co., Ltd., Bentley, W. H., and Catlow, B., diarylmethanes and their derivatives, (P.), B., 874.
Boaler, W. H. See Brit. Celanese.
Boam, J. J. See Cahn, R. S.

Boas, F., and Steude, R., new saponins, A., 1571.

Boas, W., clastic behaviour of tin singleand poly-crystals, A., 145. and Schmid, E., temperature variation of crystal plasticity, A., 928.

Boatner, C. H. See Bachmann, W. E.

Bobischev, M. D. See Magidson, O. J. Bobko, E. V., and Matveeva, T. V., determination of boron in soils and plants, A., 914.

Bobkov, P. K., hydrolysis of inulin under pressure in chicory juice, B., 469. Hydrolysis of inulin in juices of chicory and Jerusalem artichoke in presence of acids, B., 905.

Bobovnikov, N. D. See Kroenig, V. O. Bobrański, B., 4-hydroxyquinoline-3-aldepreparation of 4-hydroxyhyde; quinoline (kynurine), A., 863. Sec also Kochańska, L.

Bobrov, N. A., determination of specific pressures in pressing of metals, as method of physico-chemical analysis, B., 745.

Bobrova, A. F. See Karshev, V. I.

Bobrovnik, D. P., chemical and minera-

logical examination of the precipitate obtained from 50% NaOH and sodium sulphate, A., 172. See also Budnikov, P. P.

Bocca, C., and Amati, L., photographic relief images, (P.), B., 173. Printing and projecting images in natural colours, (P.), B., 477.

Bocciarelli, D. See Bernardini, G.

Bocharnikov, combined method of processing copper pyrites from the Bliavui-

Cherson deposits, B., 197.
Bocharov, A. A., and Laktionova, N., high-grade aluminium bronzes and brasses, B., 412.

Bochmann, O., and Amer. Bemberg Corp., spinning centrifuge, (P.), B., 57.

Bock, C. D. See Zeleny, J. Bock, G., and Schröder, E., electrodes for electric arc-welding, (P.), B., 555.

Bockemühl, K. See Leitgebel, W. Bodansky, M., influence of feeding amino-acids and other compounds on excretion of creatine and creatinine, A., 369.

[with Duff, V. B., and Herrmann, C. L.], comparison of glycine and guanidinoacetic acid as precursors of

creatine, A., 1544. and Duff, V. B., effect of pregnancy on resistance to thyroxine; creatine content of the maternal and fætal myocardium, A., 1565. Age as a factor in resistance of rats to thyroxine; creatine content of the tissues in experimental hyperthyroidism, A., 1565.

See also Selle, W.A.

Bodansky, O., accelerant effect of aamino-acids on activity of bone-phosphatase, A., 896. Effect of a-aminoacids and magnesium on the activity of kidney and intestinal-phosphatases, A., 1298.

Boddie, G. F., ketosis in cows, A., 231. Boden, G. W., manipulation of Canadian radium and its application to British science and industry, B., 502.

Bodenbender, H. G., mechanical tests for safety glass, B., 146.

Bodenmüller, B., spray- and press-casting of metals and plastic masses, B., 1100. Bodenstein, J. C., composition of pine-

apples, A., 1307.

Bodenstein, M., mechanism of reactions of nitric oxide with oxygen, chlorine, and bromine. I., A., 294. Combustion processes and explosions in the gaseous

phase, A., 1208.

Bodine, J. H., and Boell, E. J., enzymes in ontogenesis (Orthoptera). II. The indophenol oxidase, A., 1417. Effect of methylene-blue on respiration of blocked and developing embryonic cells, A., 1551.

Bodman, G. B., forest floor developed under conditions of summer rainfall deficiency in Californian pine and fir forest, B.,

Bodmer, J. F. See Sperber, J.Bodnar, Z. See Klemensiewicz, Z.

Bodson, E., and Nisoli, F. E., behaviour of certain diatomic molecules in stellar

atmospheres, A., 128.
Bodunkov, B. I. See Rusanov, A. K.

Boe, E. S. See Bencowitz, I. Boecker, G., hard metal alloys, (P.), B., 1212.

See also Rheinische Metallwaaren & Maschinenfabr.

Boedecker, F., ethereal sulphur-containing compounds, (P.), B., 1235.

Boedeker, H., resin sizing of kraft paper, B., 636.

Boedicker, H., nuclein bases of meat extract, B., 1124.

Boedler, J. See Houben, J.

Böeseken, J., valency-linking shifting in cyclanes, A., 431. Steric configuration and strain of ring compounds, A., 550. Oxidation products of thiocarbamide; the dioxide as derivative of sulphoxylic acid, A., 1097.

and Bijlsma, U. G., substituted aminophenanthrolines, (P.), B., 1018. Substituted and unsubstituted aminom-phenanthrolines in which the aminogroup is in the benzene nucleus of the phenanthroline ring system, (P.), B., 1179.

Cohen, W. D., and Kip, C. J., synthesis of sesamol and its β -glucoside; Baudouin's reaction, A., 1510.

Henriquez, P. C., and Spek, J. J. van der, interaction of groups in the same molecule, A., 602.

and Jacobs, J., oxidation of 1:3-diketones by peracetic acid, A., 1490. Oxidation of the ethylenic linking adjacent to a carbonyl group by peracids, A., 1510.

and Leefers, J. L., preparation of puro sorbitol and sorbose and the influence of this ketose on conductivity of boric acid, A., 52.

and Meulen, (Mile.) A. T. H. van der, oxidation of thianthren and its oxides by peracetic acid, A., 1518. and Schoutissen, H. A. J., mechanism

of diazotisation, A., 837.

and Stuurman, J, ring tension of

cyclenes, A., 587.

Tellegen, F., and Henriquez, P. C., configuration of dioxan and the cis-

and transnaphthadioxans, A., 82.
Vermaas, N., Zaayer, W. H., and Leefers, J. L., existence of boric acid complexes with one and with two molecules of a diol in aqueous solutions, A., 29.

and Wicherlink, E., rate of oxidation of o-iodobenzoic acid by peracetic acid, A., 1469.

and Zuydewijn, E. de R. van, tautomerism of butadiene sulphone, A.,

Boegehold, A. L., Peterson, A. A., and Gen. Motors Corp., valve steel, (P.), B., 330.

Tobin, C. J., Smart, C. F., and Gen. Motors Res. Corp., carburisation of [steel] brake drums, (P.), B., 25.
Böger, A., and Martin, W., vitamin-C

and blood, A., 647. Bøggild, C. B. K., Jacobsen, M., and Aasted, K. C. S., treatment of chocolate

or other semi-liquid or plastic substances, (P.), B., 1233.

Bøggild, J., relationship between Hoffmann collisions and showers, A., 659. and Karkov, A., absorption analysis of the Hoffmann collisions, A., 1315.

Boegner. See Paisseau, G. Boehler, P. See Battegay, M. Böhm, F., and Grüner, G., determination of tryptophan in proteins by means of the Pulfrich photometer, A., 220. Determination of residual nitrogen and of its fractions and of blood-phenols in the Folin-Wu filtrate by the step photometer, A., 1572.

Boehm, G., form of the micelles of the stroma-proteins, A., 93. Form of polypeptide chains. I. dl-Alaninehexapep-

tide, A., 711.

Böhm, H. See Joos, C.
Boehm, T., and Grohnwald, (Frl.) M.,
dyes from furfuraldehyde, A., 830. System benzaldehyde-ammonia-malonic acid, A., 986.

Böhme, H., preparation of isotonic solutions, A., 793. a-Halogenated thioethers, A., 1092.

Böhme, M. See Matthes, K. Böhme, R. See Maurer, K. Boehme, W. See Tammann, G.

Böhme Akt.-Ges., H. T., alkylenes, (P.), B., 54. Dyeing and printing, (P.), B., 99, 451. Waxes, (P.), B., 242. Aqueous emulsions, (P.), B., 442. Dyeing [with basic dyes], (P.), B., 451. Amines, (P.), B., 488.

See also Böhme Fettchemie Ges. m.b.H. Böhme Fettchemie Ges. m.b.H., viscose artificial silk and films, (P.), B., 926. Delustring of lustrous fibrous materials, (P.), B., 591.

and Böhme A.-G., H. T., rendering fabrics resistant to creasing, (P.), B., 638. Improving fibres and textile materials, (P.), B., 690. High-molecular 1:2-[$\alpha\beta$ -]glycols, (P.), B., 823. Glycols from fatty acids, (P.), B., 823. Process for delustring lustrous fibrous materials, (P.), B., 930.

Boehmer, J. W., aliphatic carbinides and their conversion into α-aryl-β-alkyl-

carbamides, A., 829.

Böhning, F. Seo Marchionini, A.

Boehringer & Soehne G.m.b.H., C. F., electric conductors spun round with artificial silk, (P.), B., 647. See also Müller, Richard.

Boehringer Sohn Akt.-Ges., C. H., citraconic and itaconic acids and anhydrides, (P.), В., 1081.

Boeke, J. See Overhoff, J.

Boekenoogen, H. A., viscosity of fatty oils, B., 28. Linseed oil question, B., 1053. Linseed oil mucilage, B., 1107. Minor constituents of fats and oils, B.,

Boell, E. J., respiratory quotients during embryonic development (Orthoptera), A., 368.

See also Bodine, J. H., Huff, G. C., and Taylor, A. B.

Bömer, A., and Brehm, F., glycerides of fats and oils. XIV. Glycerides of hardened castor oil, B., 1106.

Böning, K., influence of the anions of fertiliser salts on decomposition and degeneration of potatoes, B., 385.

Boensel, H. See Küntzel, A. Boer, A. G., Reerink, E. H., Wijk, A. van, and Niekerk, J. van, naturally occurring chicken provitamin-D, A., 1033.

Börger, E., methane as propellent for automobiles, B., 866.

Boeri, E., Scoz, \hat{G} ., and Baer, P., insulin and body-weight. I. Variations in body-weight, glycogen content, and iodine value of adipose tissue, A., 763. See also Baer, P., and Bergami, G.

Boerlage, G. D., and Broeze, J. J., combustion qualities of Diesel fuels, B.,

Broeze, J. J., Le Mesurier, L. J., and Stansfield, R., correlation of tests on ignition quality of Diesel fuels, carried out at Delft and Sunbury, B., 867.

Börner, E. See Krönnke, F.
Boers, C. J. See Dorgelo, H. B.
Boersch, H., primary and secondary image in the electron microscope. 11. Investigation of structure by electron

diffusion, A., 1224.

Böttger, S. See Spengler, O.

Böttger, W., and Thomä, E., Wicke's reaction, A., 1470.

Bötzkes, M., application of disperse gases. I. Medicinal baths, B., 523.

Boffey, H. See Linen Industry Res. Assoc. Bogaert, A. van, and Meel, L. van, bloodlipins, -calcium, and -potassium during experimental excitation of the hypothalamus [in dogs], A., 356.

Bogaevski, G., Kljagina, W., and Kolpakov, A., legume hay meal in rations for young pigs, B., 427.

Bogart, \hat{R} ., and Hughes, J. S., ascorbic acid in sprouted oats, A., 120.

Bogatzki. D. P., effect of composition of slag on contamination of iron with oxygen, B., 410.

Bogdanovskaja, R. See Kozlov, N. S. Bogert, E. O. See Herting, O.

Bogert, M. T., spiran by-product in the

phenanthrene synthesis, A., 1102. See also Adelson, D. E., Ast, M. G., Cairneross, S. E., Hasselstrom, T., Hildebrand, J. G., jun., Mikeska, V. J., Orcutt, R. M., Papa, D., and Robinson, E, A.

Boggess, T. S. See Beard, H. H.

Boggs, C. R., and Blake, J. T., deproteinised rubber, B., 1168.

and Simplex Wire & Cable Co., electrical [insulated] cable, (P.), B., 798.

Boggs, H. M., and Alben, A. O., determination of zinc in soils, B., 562.

See also Adams, J. E., and Alben, A. O. Bogin, C., butyl and ethyl acetates as lacquer solvents, B., 703.

and Commercial Solvents Corp., cellulose lacquer composition, (P.), B., 463.

Kelly, V., and Commercial Solvents Corp., bronzing liquid, (P.), B., 802. Nongelling [nitrocellulose] lacquer, (P.),

B., 1166. and Wampner, W. L., use of malic acid to prevent livering of finishes containing zinc oxide, B., 1217.

Bognár, A., effect of sulphur on hydrogenation of phenol and tricresol, B., 181.

Bognovarov, A. See Chajdukov, N. Bogomilskaja, E. P. See Singalovski, N. S.

Bogomolova, M.J., gold and copper in salt crystals and synthetic sylvine, A., 1466. Bogomolova, M. N. See Arzibisehev,

Bogorodski, A. J., and Dezideriev, G. P., specific heat of concentrated aqueous lithium, sodium, and potassium chlorides, A., 565.

Bogoslovskaja, A. F. See Tarasenkov, D. N.

Bogoslovskaja, T. See Kirikov, A. P. Bogoslovski, B. M., reduction of nitrocompounds by hydrazine [preparation

of 4:4'-azoxyphenetole], A., 837. and Krasnova, V. S., detection of cupric ion, A., 812.

Bogoslovski, D., effect of degree of polymerisation of oils on quality of oil paints,

Bogue, R. H., compounds in Portland cement, B., 103.

Boguslavski, E. von, determination of sand in soil samples, B., 164.

Bohan, J. P., and Bohan, T. P., refining apparatus for crude oil, (P.), B., 9. Bohan, T. P. See Bohau, J. P.

Bohanes, A., determination of glycerol in dye suspensions for printed fabrics. B., 12.

Bohart, G. S., acidity variations in fruits for canning, B., 760. Influence of various acids on corrosion in Royal Anne cherries, B., 760. Cause of colour fading in processing green vegetables, B., 760.

Bohdanowiczówna, H. See Murza-Murzicz, S.

Bohle, K., heart poisons and saponins of the cholane series, A., 1553.

See also **Tschesche**, R.

Bohler Gebrüder & Co. Akt.-Ges. See Holzberger, J.

Bohm, E. See Bengen, M. F. Bohn, H., Friedsam, A., and Hahn, F., true and apparent creatine and creatinine of blood and urine, A., 93.

Bohn, L. J., and Bailey, C. H., physical properties of wheat-flour doughs, B., 809. Effect of mixing on physical properties of dough, B., 1175.

Bohn, R. M. See Gilmer, R. S.

Bohn Aluminum & Brass Corporation, cadmium-base bearing metal, (P.), B., 554*.

See also MeCullough, W. E.

Bohner, H., improvements of aluminium alloys of high copper content by magnesium additions, B., 24. Free-cutting light-metal alloys on a magnesium-aluminium basis, B., 1159. Effect of soda containing water-glass on light metal treated in different ways, B., 1160. Bohnstedt, R. M. See Moncorps, C.

Bohr, N., neutron capture and nuclear constitution, A., 403. Neutron capture and structure of the atomic nucleus, A., 541. Conservation laws in quantum theory, A., 1046. Bohstedt, G. See Hayward, J. W.

Bohunka, L., creatine-creatinine determinations according to Folin, A., 1308.

Boie, W., flue-gas heat content-calorific value-temperature diagram for fuels, B., 724. Relation of fuel coefficients to the lower calorific values of ash-free fuels, B., 1186.

Boiling, E. H. See South Metropolitan Gas Co.

Boinot, F. See Usines de Melle.

Boissaux, T., heat-treatment of unalloyed cast iron, B., 547.

Boissevain, C. H., decomposition of tuber-

culoprotein, starch, and gelatin by dry grinding, A., 359. Comparison of antigenie properties of defatted tuberele bacilli and their derived proteins, A.,

and Drea, W. F., relation between occurrence of endemic goitre and presence of traces of silver and barium in drinking-water, A., 1540.

Boissonnas, C. G., influence of molecular size on activity, A., 937.

Boivin, A., comparative behaviour of endotoxins and exotoxins towards triehloroacetic acid, A., 1423.

Boivin, A., Marbe, M., Mesrobeanu, L., and Juster, P., existence in B. tumefaciens of an endotoxin capable of causing formation of tumours in plants, A., 383.

Mesrobeanu, L., Magheru, C., and Magheru, A., "complete" somatic antigen contained in some B. coli, A., 384.

See also Magheru, G.

Boizard de Guise, J., carbonisation of fats by the Bonnevie process, B., 177.

Boki, G. B., crystallo-chemical analysis, A., 949.

Bokil, K. V., oxidation of acetyltetrahydroquinolinesulphonic acids, A., 1265.

Bokinik, J. I., and Iljina, Z. A., optical sensitisation of silver halides. IV. Chain mechanism of the optical sensitisation

of silver bromide, A., 1215.

Boku, S., Hirai, I., and Gon, K., influence of splenic fractions on blood coagulation. I. Effect of splenectomy, spleen diet, and spleen extract, A., 358. Antibodyforming accelerator in spleen. IV. Influence of spleen diet on hamolysin and agglutinin formation, A., 359.

Bokum, E. J., reaction of folspar with hydrochloric acid and alkalis in relation to rational analysis of clays, B., 834.

Bokunjaeva, V. I. See Kitaigorodski, I. I. Bolam, R. F., copper-base alloy, (P.), B.,

Bolam, T. R., and Duncan, A. I. S., ionic interchange in stearic acid sols and the mechanism of coagulation, A., 1338.

Bolcato, V., influence of buffer on sugar consumption and acid production by Aspergillus, A., 112. Lacto-mannitic enzymes. II. Lactic acid in mannitic fermentation of fructose. 111. Products of fermentation of glucose, A., 638, 1555.

Bolduc, A., amœbie dysentery: public health significance and control, B.,

Boldyreff, W. N., dry natural digestive juices: properties and use, A., 1536.

Boldyrev, A. K., notation of polymorphic modifications, A., 1088.

and Dolivo-Dobrovolski, V. V., tables for determination of crystals, A., 1325.

Bolen, P., and Amer. Lecithin Co., dycing [with sulphur, carbazole, and vat dyes], (P.), B., 1204.

Boleoucky, F., magnesium and sugar formation in the sugar beet, B., 1116.

Bolidens Gruvaktiebolaget, arsenate-aluminate cement, (P.), B., 277. Refining of selenium, (P.), B., 542. Arsenate cement or cement mixtures, (P.), B., 934. Impregnation of wood and other permeable materials, (P.), B., 992. Electrical purification of gases containing elementary sulphur, (P.), B., 1003. Bolinger, E. C. See King, C. V.

Bolla, G., influence of temperature on Raman bands of water at $\Delta v = 510 - 780$

cm.-1, A., 776.
Bollenrath, F., and Bungardt, W., heatconductivity of pure iron and technical steel, B., 277. Electric spot-welding for aluminium and its alloys, B., 1160.

and Cornelius, H., susceptibility of hightensile [low-alloy] steels to weld fissures, B., 793.

Boller, E. R. See Grasselli Chem. Co. Boller, R., and Makrycostas, K., effect of previous diet and insulin administration on adrenaline hyperglycæmia, A., 763. Bolley, D. S. See Rose, C. H.

Bolliger, A., compounds of proteins with o-nitrophenols, A., 90. Volumetric micro-determination of magnesium with methylene-blue following its precipitation as magnesium pierolonate, A., 178. Volumetric extraction analysis, A., 219. Determination of hamoglobin as globin pierate, A., 1308. Determination of creatinine, A., 1397. Volumetric microdetermination of spermine in semen, A., 1405.

Bolling, A. See Hilpert, R. S. Bollman, J. L. See Flock, E.

Bollman, V. L. See Du Mond, J. W. M.

Bolsi, D., and Visintini, F., effect of adrenaline, atropine, and ergotamine on excitability of the irido-dilatory sympathetic system, A., 1295.

Bolsover, G. R. Sec Swinden, T.

Bolt, C. C., and Backer, H. J., steric hindrance to hydrogenation of the ethylenic linking in butadiene sulphones, A., 1517.

Bolton, E. R., and Williams, K. A., measuring colours of transparent and opaque substances, (P.), B., 941.

Bolton, J., [sewage-]sludge digestion, B., 301.

Bolton, J. W., and Lunkenheimer Co., [copper-nickel] alloy, (P.), B., 416. Weigand, S. A., and Lunkenheimer Co., [copper-nickel] alloy, (P.), B., 416. Bolton & Sons, Ltd., T., and Hayes, J.,

casting of metals [copper], (P.), B., 1047. Boltunov, J. A., and Vorsina, M. A., application of bimetallic electrodes to titration

of acids or alkalis, A., 41.

Boltz, $H. A_1$ See Baker, E. B.

Bolzinger, A., [gas-liquor] ammonia recovcry at Nantes, B., 132.

Bomke, H., vacuum spectroscopy, A., 581. Dissymmetry of intensity in the longitudinal Stark effect of the Balmer series, A., 915.

See also Stark, J.

Bon-Bernatets, (Mlle.) G. See Fleury, P. Bonadonna, T., rice bran as food for dairy cows, B., 1231.

Bonamour, G. See Policard, A.

Bonath, K. See Beck, W.

Bond, A. E., and Crossfield, J. T. K., plastic compositions [containing rubber], (P.), B., 288.

Bond, B. C., comparison of sulphonated fatty alcohols with soaps in the textile industry, B., 831.

Bond, E. J., recent developments in paint technology, B., 159, 1005.

Bond, G., fixation and transfer of nitrogen in the soya bean with special reference to the mechanism of transfer of fixed nitrogen from bacillus to host, A., 1164.

Bond, G. C. See Downs, C. M. Bond, G. W., comparison of routine methods of determining hardness of water, B.,

1022.Bond, H. A. See Du Pont de Nemours & Co., $E.\ \hat{I}.$

Bond, V. S. Sec Umbreit, W. W.

Bond, W. N., air-damped balances, A., 446. Viscosity of air, A., 931. Fundamental physical constants, A., 1442.

Bond Manufacturing Corporation, cork composition, (P.), B., 31.

Bondarenko, B. I., and Fedorov, V. S., type of tube still for petroleum-distillations. lation equipment, B., 483.
Bondareva, M. V. See Sobolev, M. M.

Bondarin, V. See Jermolenko, N. Bondi, A. See Bergmann, E.

Bondi, J. See Pringsheim, H. Bondon, J. See Blondel, F.

Bondy, C., and Söllner, K., emulsification by ultrasonic waves, A., 425.

See also Söllner, K.

Bondy, H., and Vanicek, V., ionic emission of alkali metals from glass melts and data from mass-spectrometric measurements of the relative frequencies of isotopes of lithium, potassium, and rubidium, A., 1171.

Bondy, H. F., influence of coloured materials on autoxidation of balata and caoutchouc, B., 419.

Bone, H. M. See Williams, Robert C.

Bone, W. A., initial formation of methyl alcohol in the oxidation of methane, A., 187. Benzenoid constitution of coal, B., 82.

and Gardner, J. B., slow combustion of methane, methylalcohol formaldehyde, and formic acid, A., 801.

and Newitt, D. M., gaseous and liquidphase reactions at high pressures, B.,

Bonhoeffer, K. F., optical investigations on flames, A., 1208.

and Salzer, F., enzymic hydrolysis of glucosides in heavy water, A., 377. Sec also Geib, K. H., Reitz, O., Salzer, F., and Wirtz, K.

Bonhomme, F., inhibition of autoxidation of adrenaline by the aqueous humour, A., 890.

Bonhôte, G. See Soc. Chem. Ind. in Basle.

Bonicatti, M., oil extracted by pressure from the male silkworm butterfly, A.,

Bonino, G. B., Raman spectrum of pyrrole and its derivatives, A., 1050.

and Manzoni-Ansidei, R., Raman spectrum of derivatives of pyrrole, A., 546. Raman spectrum and constitution of pyrazole and of some of its derivatives, A., 664. Raman spectrum of indole, A., 1050.

Manzoni-Ansidei, R., and Dinelli, D., Raman spectrum of substituted pyrrolealdchydes, A., 664. Raman spectrum of divinyl sulphide, A., 1050.

and Scaramelli, G., electrochemical reduction potential of pyrrolealdehyde, A., 1342.

Bonis, A., determination of barium silicofluoride in insecticidal powders, B., 36. Bonnell, D. G. R., carbonation of un-

hydrated Portland cement, B., 1154. See also Wilsdon, B.H.

Bonner, J., plant tissue cultures from a hormone viewpoint, A., 1163. Growth and respiration of the Avena coleoptile, A., 1433.

Bonner, L. G., spectrum and force constants of the ethylene molecule, A., 269.

See also Barnes, R. B. Bonner, T. W., and Brubaker, W. M., disintegration of lithium by deuterons, A., 6. Neutrons from disintegration of deuterium by deuterons, A., 264. Disintegration of nitrogen by neutrons, A., 403. Disintegration of nitrogen by slow neutrons, A., 773. Dis-integration of beryllium, boron, and carbon by deuterons, A., 1174.

See also Brubaker, W. M.

Bonner, W. D., Gore, W. L., and Yost,
D. M., thermal reaction between
gaseous iodine monochloride and hydrogen, A., 163.

Bonner, W. D., and Kinney, C. R., direct carboxylation of carbon compounds. III. Free energy of benzoic acid at 522° abs., A., 291.

Bonnet, F., rayon drying, B., 828.
Bonnet, P. See Policard, A.
Bonnet, R., and Jacquot, J., carbohydrate metabolism of Aspergillus niger is a function of the nitrogen source of the nutrient medium, A., 382.

and Nataf, B., destruction of hydrolytic enzymes in the course of their action,

A., 243.

and Razafimahery, R., specificity of urease, A., 1420.

Bonnett, H. T. Sco Major, R. T. Bonneviale, R. Sco Boutaric, A.

Bonney, R. D., Egge, W. S., and Congoleum-Nairn, Inc., [chlorinated rubber] protective coating composition, (P.), B., 944.

Ridge, G., De Boer, A. G., and Congoleum-Nairn, Inc., adhesive composition, (P.), B., 944.

Bonney-Floyd Co. See Gregg, A. W., and Mitchell, H. A.

Bonnybridge Silica & Fireclay Co., Ltd., and McBryde, W., muffle furnaces, (P.),

Bonnyns, R., effect of parathyroid extract on blood coagulation, A., 386.

Bonorino, U. C., Schteingart, M., and Ferramola, R., bromine in blood and spinal fluid; its relation to bloodiodine, A., 357.

Bonsack, IV., and Nat. Smelting Co., composition for treating aluminium

alloys, (P.), B., 331.

Bonsignore, A., probable nervous mechanism of increase of reducing power of the aqueous humour under the action of light, A., 371. Reducing substance in brain. I. Chemical tests, A., 1286.

and Ardy, C., reducing substance in brain. II. Biological assay, A., 1286.

See also Martini, E.

Bonte, F. R., ferrous alloys, (P.), B.,

Bontenbal, J. See Reinders, W.

Bonthron, K. See Tigerschiöld, K. M. Bontoux, H. See Imbert, R.

Bonwitt, G., artificial sponges from cellulose derivatives, B., 608.

Boogaert, H. L., bacteriological quality of milk, B., 425.

Booge, J. E., and Krebs Pigment & Color Corp., calcium sulphate-zinc sulphide pigment, (P.), B., 1006.

McKinney, R. M., Sullivan, R. W., and

Krebs Pigment & Color Corp., an-

hydrite, (P.), B., 641. Radeliffe, R. S., and Krebs Pigment & absorption, (P.), B., 1006.
hariwalla, D. B. See Appleton,

Boohariwalla, D. E. V.

Booher, L. E., and Hansmann, G. H., vitamin-B2 concentrates as preventives of black-tongue, A., 1429. See also Whitcher, L. B.

Booij, H. L. See De Jong, H. G. B. Bookheim, A., preparation of hydrofluoric acid, A., 691.

Boomer, E. H., Argue, G. H., and Edwards, J., hydrogenations in a medium. III. Destructive tetralin medium. hydrogenation of cellulose and wood, B., 226.

Boomer, E. H., and Edwards, J., hydrogenations in a tetralin medium. I. Destructive hydrogenation of bitumen and pitch. II. Destructive hydrogenation of coal with tetralin and with a mixture of related compounds as media. IV. Destructive hydrogenation of grain screenings, B., 226.

Boon, W. R., and Robson, W., carbamidoacid and hydantoin of arginine, A., 58. Preparation of ornithine, ornithuric acid, and a-benzoylornithine, A., 59.

Boor, L., and Amer. Cyanamid Co., ammoniating [ammonium dihydrogen phosphate], (P.), B., 18.

Boorne, W. H., plastic compound [from

phenol-aldehyde resin], (P.), B., 1007.

Boorse, H. A., and Niewodniczański, H., electrical resistance of aluminium at low temperatures, A., 416.

Booth, C. F., and Swann Res., Inc., disodium phosphate, (P.), B., 987.

Booth, E. T., and Hurst, C., nuclear reactions due to neutrons of 2 m.c.v. energy, A., 1314.

Booth, II. See Clews, F. II. Booth, H. S., decolorisation of alkalinecarth sulphates, (P.), B., 1038.

and Burchfield, P. E., fluorination of halogenomethyl ethers. I. Fluorination of trichlorodimethyl ether, A.,

Elsey, H. M., and Burchfield, P. E., fluorinated chlorobenzenes, A., 61. Benzotrifluoride and its halogenated derivatives, A., 61.

and Herrmann, C. V., fluorination of sulphuryl chloride : sulphuryl chlorofluoride, A., 302.

and McIntyre, L., [efficiency of] desiccators, A., 583. and Morris, W. C., germanium chloro-

fluorides, A., 301.

and Willson, K. S., thermal analysis of the system argon-boron trifluoride; compounds with the inert gases of the atmosphere, A., 30. Critical phenomena of the system argonboron trifluoride, A., 30. See also Emery, F. H.

Booth, H. T., and Lubrication Control Corp., viscosity-responsive devices, (P.), В., 1185. Viscosimeter, (P.), 1185.

Booth, L. W., dyeing of [animal] hair, B., 97.

Booth, W. E. Sec Imperial Chem. Industries.

Booth Steamship Co., Ltd., and Ward, H. G., extraction of toxins from roots for manufacture of insecticides, (P.), B., 38.

Boothby, W. M. See Adams, M.

Boothman, D. M. See Aluminum Co. of America.

Boots Pure Drug Co., Ltd., and Marshall, J., antiseptic germicidal substances [isobutylchlorophenols], (P.),

Pyman, F. L., Garforth, B., and Anderson, L., organic derivatives of arsenic, (P.), B., 1130.

Bopp, \hat{F} ., double Compton scattering, A., 1439.

Boqué, F. Sec Garcia Banús, A. Boquet, A., and Sandor, G., preparation

of purified tuberculin, A., 385. Borasio, L., cooking of macaroni products: characteristic criteria and methods of testing, B., 1014.

Boratyński, K., colorimetric determination of orthophosphate in presence of metaand pyro-phosphate, A., 694.

See also Glixelli, S. Borchard, K. H., influence of experimental conditions on measurements of strength of hollow glass, B., 1093. Fatigue and breaking strength of glass bottles, B., 1093. Cause of diminution in strength of glass with increasing time of loading, B., 1093.

Borchardt, H. See Dingemanse, E.

Borchers, H., new ceramic materials as aids in study of technically important electrolytic melts, B., 147.

and Hermanns, G., dearsenification of speiss by hydrogen sulphide and hydro-

chloric acid gas, B., 549. Borchert, H., origin and exhaustion of salt deposits. II. Dynamic polytherm system of salts of the oceanic salt deposits,

Borehert, W. See Leonhardt, J. Borden, A. D., codling-moth control and spray residues, B., 1118.

Borden Co. See Ansbacher, S., Flanigan, G. E., Pennington, M. E., Supplee, G. C., and Weatherford, E.

Bordunova, M. A. See Geltschinskaja, R. B.

Borek, E., and Clarke, H. T., carboxymethoxylamine [aminoxyacetic acid], A.,

Borel, J. See Soc. d'Exploit. des Cables Electr. Système Berthoud Borel & Co.

Borelius, G., theory of transition of metallic mixed phases. III. Diagrams of state for partly ordered mixed phases, A., 24. Boren, J. A. See Harvey, Eric M.

Boreskov, G. K., active vanadium catalysts for manufacture of sulphuric acid, B., 315. Replacement of tin in B.O.V. vanadium catalyst, B., 315. Vanadium catalysts for sulphuric acid production, B., 737.

Guminskaja, M.A., and Plegunov, V.P., determining activity of contact catalysts for the sulphuric acid industry, **B.**, 406.

Borgatti, G., action of creatine on the double electric curve of fatigue in man, A., 374.

Borger, G., Bayerle, H., Mayr, T., and Peters, E., pathological physiology of infarct. III. Ammonia and lactic acid during necrosis and autolysis, A., 231. See also Bayerle, H.

Borghesan, E., determination of [metal] content of a mineral by measuring its

density, A., 176.

Borghetti, E. See Tuffi, R.

Borghetty, II. C., "lanital"-|-wool mixture fabrics, B., 1034.

and Zaparanick, J., selection of dyes for padding [fabries], B., 16.

Borghi, M., and Barbe, M., apparatus for rapid determination of sugar in extracted

[beet] slices, B., 165.

Borglin, J. N., dicarboxylic acid esters of tetrahydrofurfuryl alcohol, A., 340. Terpene furoates, A., 341.

Sce also Hercules Powder Co. Borgman, J. A. Sco Lebedev, S. V.

Borgström, S., exerction of oxalic acid by guinea-pigs, A., 229. Metabolism of bacteria-free animals. II. Production and exerction of oxalic acid by guineapigs, A., 1412.

Boriani, A. Sco Beccari, E. Borin, A. V. Sce Schor, M. I.

Borin, F. A., and Velitschko, J. P., search for new high-grade alloys with a copper or aluminium base, B., 412.

Borinevitsch, V. S. See Volarovitsch, M.P.

Borissov, A. E. See Juriev, J. K.

Borissov, M. D., Kara, I., and Sinelnikov, K. D., electrical conductivity of cuprous oxide in strong electric fields, A., 549.

Borissov, N. V. See Arzibischev, S. A. Borissov, P. P., and Gaverdovskaja, M. V., influence of catalysts in vapour-phase cracking, B., 227.

Gaverdovskaja, M. V., and Epifanski, P. F., cracking of kerosene, spindle, automobile, and cylinder oils in presence of aluminium chloride, B., 402.

Borissova, T., and Proskurnin, M., polarisation capacity of the mercury electrode, A., 1467.

Boritch, D. See Spoujitch, V.

Bork, A_{\cdot} , catalyst poisoning from the point of view of the specificity of active centres. IV. Orientation of molecules of reactants and resultants on catalyst surface in catalysed dehydrogenations and analogous catalytic reactions, A., 1472.

and Balandin, A. A., catalyst poisoning from the point of view of the specificity of active centres. I. Relative durations of sojourn of ethyl alcohol and acetaldehyde molecules on copper. II. Effect of temperature on relative durations of sojourn of ethyl alcohol and acetaldehyde, and true activation energy of ethyl alcohol dehydrogenation on copper. III. Relative durations of sojourn of n-propyl alcohol and propaldehyde molecules, and true onergy of activation of n-propyl alcohol dehydrogenation on copper, A., 1076, 1472.

Borkenstein, W., electrolysis stand, A., 1481.

Borkowski, Z. See Wierzuehowski, M. Borman, J., Borowy, J., and Polowicz, M., digestibility coefficients in feeding pigs on good versus bad silage, B., 43.

Born, H. J., helium content of minerals not emitting a-rays and its explanation,

Born, M., quantised field theory and the mass of the proton, A., 134. and Nath, N. S. N., neutrino theory of

light, A., 774.

Bornand, M., albuminous precipitins, A.,

Borne, H. von dem, light scattered by cloudy media and its polarisation, A., 664.

Borodina, O. J. See Arbusov, G. A.

Boros, J., and Gyulai, Z., electrical evaluation of recovery in compressed rock-salt crystals, A., 145.

Boros, J. von, and Czoniczer, G., action of the thyroid on blood formation, A., 903.

Borovik, S. A., and Gudris, N. M., last lines of rhenium in presence of large amounts of molybdenum, A., 952. Borowy, J. See Borman, J.

Borozdina, M. S. See Petrov, P. N.

Borradaile, T. A., and Alkaline Earths Co., separation of magnesium chloride from calcium chloride, (P.), B., 19.

Borrowman, G., preparation and use of water-purifying material, (P.), B., 622. Borsani, A., solvents of active principles of chamæpitium, A., 240.

Borsche, W., colour reaction of isatin with pyridine and acetic anhydride, A., 998.

and Bütschli, L., 1-arylindazoles. II., A., 865.

and Niemann, $J_{\cdot,\cdot}$ unsaturated acids from hydroxymethylene compounds, A., 1230.

Borshkovski, S. See Palladin, A. V. Borsig Maschinenbau Akt.-Ges., A., frac-

tionating columns, (P.), B., 400.

Borsook, H., and Jeffreys, C. E. P., glutathione and ascorbic acid, A., 1032.

and Keighley, G. L., "continuing" metabolism of nitrogen in animals, A., 103.

Borst, H_{\cdot} , question of further maxima of density curves of photographic emulsions after appearance of solarisation, A., 36. Deterioration of photographic developers by the action of bacteria, and the removal of this phenomenon, B., 909. Xanthates as desensitisers, B., 1020.

Bortels, H. See Stapp, C. Bortnik, L. A. See Opotzki, V. F. Boruff, C. S. See Buswell, A. M.

Bosanquet, C. H., and Pearson, J. L., spread of smoke and gases from chimneys, B., 965.

See also Hughes, W. C., and Imperial Chem. Industries.

Bosart, L. W., perfumes and other odours, B., 762. Change in sp. gr. of ossential oils and perfumes with temperature, B.,

Bosau, C. See Teckemeyer, J. F.

Bosch, F., and Haemers, H., effect of electrolytes on negatively charged silver iodido sols considered in conjunction with micro-cataphoresis [experiments], A., 1067. See also Cuvelier, B. V. J.

Bosch, F. de A. See Le Boucher, L. Bosch, F. J. G. van den, [gas-filling for] cathode-ray tubes, (P.), B., 605. Electric gaseous-discharge lamps, (P.), B., 605. Fluorescent screens, (P.), B., 647.

Bosch Akt.-Ges., R., cements for joining constructional parts made from metallic and ceramic materials, (P.), B., 235. Alloys for permanent magnets, (P.), B., 331, 552. Magnet steels containing nickel, aluminium, chromium, and cobalt, (P.), B., 1046. Magnet steels containing nickel, aluminium, and cobalt, (P.), B., 1046. Magnet steels containing nickel, aluminium, and manganese, (P.), B., 1046. Magnet steels containing nickel, aluminium, and tungsten, (P.), B., 1046. Magnet steels containing nickel, aluminium, and chromium, (P.), B., 1046. Liquid filters, (P.), B., 1072.

Bosdon, H. L., improvised electric dryer for dyed samples, B., 189.

Bose, A., magnetic susceptibilities of organic substances in different physical states, A., 787.

Bose, A. C., determination of arsenic content of Indian foodstuffs, B., 569.

Bose, P. C. See Datta, S. Bose, P. K., and Ram, S., colour reaction of certain nitro-compounds, A., 744.

Bose, U. K., ring phenomenon in sputtered metallic films, A., 1449. Boshenov, P., use of slags from electric

furnaces in the cement industry, B., 235. Boshko, N. P., graphitisation of electrodes, B., 332. Graphitisation, B., 914.

Boshkoff, G. J., and Linde Air Products Co., oxygen of high purity, (P.), B., 789.

See also Linde Air Products Co.

Bosin, A. G., and Shilkina, M. M_{ij} , adsorption of lead nitrate by metastannic acid, A., 283.

Boskovich, M. See Olivo, O. M. Bosland, H. S., La Piana, F. G., and Stein, Hall & Co., size composition for artificial

silk, (P.), B., 591. Bosq, P. Sco Escudero, A.

Bossaert, P. See Dulière, W. L.

Bossart, A., pulp sterilisation [in beer filters], B., 565.

Bossel, H., Lake Red D for printing inks and paints, B., 894.

Bosshard, M., diffusion experiments as means of simple micrographic detection of compound formation between alloy components in three- and multi-component systems, A., 1332. Copper fragments on aluminium wires, B., 200. Zinc-covered steel wires for steelaluminium ropes with brazed joints, B., 373. "Lumisold" and "Aiagin soldering paste" for soft-soldering aluminium and aluminium alloys, B., 645.

Bosshard, W. See Ruzicka, L. Bossini, R. F., absorption refrigerating apparatus, (P.), B., 723. Bosson, G. See Florkin, M.

Bossuet, R., alkali metals in natural waters, A., 698, 1086.

Bost, R. W., and Nicholson, F., identification of phenols with 1-chloro-2:4dinitrobenzene, A., 329. See also Williams, Dudley.

Bostock, B. R. See Southern Whaling & Sealing Co.

Boston Blacking Co., Ltd., and Brother, G. H., treatment of thread and compositions suitable for use therein, (P.), B., 591.

Boston Woven Hose & Rubber Co., vulcanisation of rubber articles, (P.), B., 657.

Bostrom, E. J., and Summers, A. P., coloration of flour, (P.), B., 811.

Boswell, J. G., constitution of certain nutshells. I. Seedcoat of Bertolletia excelsa (Brazil nut), A., 911. Influence of calcium in decay of wood, B., 791.

Boswell, M. C., separation of sulphur dioxide from gaseous mixtures, (P.), B., 146.

and Iler, R. K., nickel catalysts. I. Effect of temperature of preparation on the crystal size and composition of nickel oxide, A., 942.

Bosworth, A. W., and Helz, G. E., monohydroxypalmitic acid in butter fat, A.,

Bosworth, R. C. L., mobility of potassium on tungsten, A., 793. Photo-sensitisation of films of potassium by means of hydrogen, A., 1214.

Bosworth, T. J., and Glover, R. E., differential character of Clostridium welchii, type D, A., 1423.

Botella-Llusia, J. See De Amilibia, E.

Both, M. P., transport of nitrogenous substances under the influence of differences of humidity, A., 907.

Botha, M. L. See Du Toit, P. J., and Wyk, C. M. van.

Bothe, F. Sec Nehring, E.

Bothe, W., artificial transformation of atoms, A., 132. Nuclear spectra of some light atoms, A., 918.

Bothe, W., and Baeyer, H. J. von, coincidence investigations on nuclear processes, A., 541. and Gentner, W., scattered and secondary

radiation of hard y-rays, A., 541.

and Maier-Leibnitz, H., photon theory and Compton effect, A., 1044. Experimental proof of the photon theory, A., 1170.

See also Hilgert, R., and Klarmann, H.

Botkin, C. W., protein and moisture content of wheat grown in New Mexico, B., 296.

Botrini, M. See Jolles, E.

Botrugno, C. See Corbellini, A.

Botscharova, E. M., tanning with larchbark extract, B., 420.

Dolgov, B. N., and Petrova, I. N., synthesis of higher alcohols from watergas under pressure, B., 404.

Botschvar, A. A., and Archipov, V. P.. relation between upper critical points and copper content in bearing metals,

and Dmitriev, L. I., influence of reheating on the response of zinc sheet to Eriksen's penetration test, B., 1157.

and Gorev, K. V., crystallisation of ternary cutecties, A., 932.

and Putzikin, G. G., theoretical basis for selection of optimum temperatures for monophasic metals. I. Recrystallisation diagrams, A., 1449.

Botson, R., and Kamp, J., rubber essence, (P.), B., 753.

Bott, P. A. See Elsom, K. A., and Landis, E. M.

Botta, B., carotene and vitamin-A, A., 1303. Blood-sugar level in avitaminosis-A, A., 1303.

Botti, E. See Mazza, L. Botti, E. C., Link, O. W., and Caldwell, B. P., formation of microscopic Liese-

gang rings, A., 156.

Bottini, E., influence of conditions on ripening of bananas, B., 427.

Bottini, O., thermal decomposition of ammonium clays, B., 805. Capillary rise of solutions of electrolytes in sodium soils, B., 851.

Bottomley, A. E. See Fawcett, Ltd.,

Bottomley, A. M., sooty blotch on apples, B., 41.

Bottoms, R. R., and Girdler Corp., solidification of material in finely-subdivided form, (P.), B., 961.

Wood, W. R., and Girdler Corp., solidification of material [soap, waxes, etc.], (P.), B., 701.

Boucek, B., importance of the kidneys in standardisation of digitalis [in cats],

A., 634.

Bouchard, J., fluorescent power and experimental study of fluorescent power as a function of concentration, A., 408. Influence of specific inductive capacity on fluorescent power. I. Influence of the specific inductive capacity of the solvent on decrease of fluorescent power as a function of the concentration of fluorescent material; uranine. II. Fluorescent materials other than uranine, A., 548. Influence of viscosity and temperature on fluorescent power, A., 548. Influence of foreign substances on fluorescent power; colourless inhibitors, A., 680.

See also Boutaric, A.

Bouchereau, P., hexamethylenetetramine compounds, A., 828. Action of hexamethylenetetramine on alkyl halides in presence of monohydric phenols. I., A., 1502.

Bouehonnet, A., nitration of cellulose with nitric acid vapour, B., 783.

Boudyline, V. G. See Goldberg, I. M. Bouffard, E. See Hugues, E. Bouffloux, F. See Rosen, B. Boughton, W. A., test for vacuum-tightness

of glass grindings, A., 1482.

Mansfield, W. R., and New England

Mica Co., moulded laminated mica products with inorganic binders, (P.), B., 243.

and New England Mica Co., inorganic thermoplastic composition, (P.), B., 243. Mica products with inorganic, binders, (P.), B., 243. Bonding, (P.), B., 243. Moulded laminated mica products with inorganic binders, (P.), B., 243. Fibrous products with inorganic binders, (P.), B., 243. Colloidal inorganic bonding composition, (P.), B., 596. Restraining crystallisation of dissolved [colloidal viscous] inorganic compounds in concentrated solutions, (P.), B., 693. Flexible mica product, (P.), B.,

Bouillot, J., flask with graduated neck for rapid adjustment of titrated solutions, A., 815. Apparatus for drying organic compounds decomposed by heat, A., 872. Dionine [ethylmorphine hydrochloride], B., 1068.

Bouilloux, G., identification of hexamethylenetetramine and ammonia, A., 1235.

Boulad, J. II., determination of end-point of conductometric titrations by calcul-

ation, A., 446. Boulanger, (Mlle.) J., systems zirconium oxalate-alkali oxalates-water, A., 937, 1070.

Boulanger, P. See Kuhn, R.

Boulant, P., study of ashes of coals from the north of France and Pas-de-Calais, B., 914.

Boullé, A., [allotropy of] potassium metaphosphate prepared by dehydration of potassium dihydrogen orthophosphate, A., 555. Calcium metaphosphates, A., 809. Calcium metaphosphates and pyrophosphates, A., 945. See also Jolibois, P.

Boundy, R. H. See Dow Chem. Co.

Bounin, E., and Lévinson, M., carotenæmia, A., 357.

Bourdon, R. H., dyeing of acetate rayoncotton union fabrics, B., 16.

Bourgeois, J., preparation of artificial chemical textiles and plastic masses from a mixture of cellulose and starch xanthates in alkaline solution, B., 538.

Bourgeois, L. See Vavon, G.
Bourgin, D. G., sound absorption and velocity in mixtures, A., 1189.

Bourguel, M., and Piaux, L., Raman effect and organic chemistry; Raman spectra of the ethylenic compounds CH2:CHR, A., 10.

Bourion, F., and Hun, O., cryoscopic determination of the hydration of hydrochloric acid ions, A., 934.

Bourne, G., and Allen, R., distribution of vitamin-C in lower organisms, A., 119.

See also Allen, R. Bourquard, A. See Wolff, R. Bousquet, E. W., Salzberg, P. L., and Dietz, H. F., contact insecticides from fatty alcohols, B., 117.

See also Grasselli Chem. Co.

Bousset, R., Grignard reagent of pinene hydrochloride; action of phthalic anhydride, A., 206. Number of primary dicyclie terpene alcohols, A., 207. Grignard reagent from pineno hydro-chloride; action of phthalic acid, A., 475. exo-2-o-Carboxybenzoylcamphane and endocyclophthaloyleamphane, A., 1115.

Boutaric, A., effect of light on flocculation of colloidal solutions in fluorescent media, A., 157. Imbibition of hydrosols and of dye solutions through porous bodies, A., 158. Rise of hydrosols and coloured solutions through porous material. II. Influence of constitution of hydrosols and coloured solutions on rate of rise, A., 1196.

and Berthier, (Mlle.) P., influence of addition of small quantities of electrolytes on a copper ferrocyanido sol in reference to flocculation produced by the same electrolytes, A., 680. Rise of hydrosols and coloured solutions through porous materials. I., A., 793.

and Bonneviale, R., magnetic study of sols of hydrated ferric oxide, A., 27.

and Bouchard, J., inhibiting action of alkaloids on fluorescent power of uranine in relation to antioxidant properties, A., 664. Fluorescing power of fluorescent solutions excited by ultra-violet radiation, A., 1197. Acidity of wines in terms of $p_{\rm H}$, B., 1014.

and Gautier, J. A., antioxidant properties of medicaments used as antipyretics, A., 635.

and Roy, M., physico-chemical researches on the proteins, A., 158.

Bouyoucos, G. J., mechanical analysis of structure of soils, B., 164. Clay ratio as criterion of susceptibility of soils to erosion, B., 421. Testing purity of marls and limestones, B., 421. Mechanical analysis of soils by the hydrometer method, B., 1170. Dilatometer method as an indirect means of determining permanent wilting point of soils, B., 1170.

Bovet, D., Simon, A., and Druey, J., pharmacology of hydroxyphenoxyethylalkylamines, A., 106.

See also Benoit, (Mlle.) G., Fourneau, E., and Tréfouël, J.

Bovier, L. S. See Scott, W. B. Bowater, N. J. See Gas Chambers & Coke Ovens.

Bowden, F. P., and Ridler, K. E. W., physical properties of surfaces. III. Surface temperature of sliding metals; temperature of lubricated surfaces, B., 842. Bowden, S. T., laboratory sublimation

apparatus, A., 583. Colorimeter pipette coll, A., 954.

Bowden, W. H., and Maytag Co., preparation and plating of an aluminium object, (P.), B., 459.

Bowen, A. H., and Laucks, Inc., I. F.,

adhesive, (P.), B., 897.

Bowen, E. J., heterochromatic photometry of the ultra-violet region, A., 814.

Bowen, H. H., Majerus, V. H., and Kellett, S., cellulosic fabrics, (P.), B., 1148. Production of effects on cellulosic fabries, (P.), B., 1149.

Bowen, J. F. See Eagles, B. A., and Sadler, Il'.

Bowen, N. L., "ferrosilite" as a natural mineral, A., 49.

and Ellestad, R. B., nepheline contrasts, A., 1086.

and Schairer, J. F., system albitefayalite, A., 1070.

Bower, F. J. See De Jahn, F. W.

Bower, J. E., self-cleaning screen, (P.), B., 961.

Bower Chemical Manufacturing Co., H. See Grove, S. F.

Bowers, C. N. See Wescott, B. B.

Bowers, C. S., and Hucker, G. J., composition of media for bacteriological analysis of milk, B., 567.

Bowers, D. W., apparatus for gas scrubbing,

etc., (P.), B., 49. and Bowers, E. F., treatment [amalgamation] of metal [gold-] bearing ores, (P.), B., 154.

Bowers, E. F. See Bowers, D. W.

Bowers, G. F. See Standard Oil Co.

Bowers, G. W., and Hamilton, C. S., reactivity of nuclear chlorine in the isomeric 1:2- and 2:1-chloronaphthalenearsinic acids, A., 1396.

Bowers, L. M. See Sherwood, T. C.

Bowes, J. H., and Murray, M. M., chemical composition of teeth. II. Composition of human enamel and dentine. III. Variations in chemical composition in relation to dental structure, A., 225, 878. Natural sources of fluorine and "mottled teeth" in Maldon, Essex, A., 883.

Bowie, R. M., determination of the thermionic work function of nickel by a new

method, A., 539.

Bowker, R. C., and Emley, W. E., comparative wear of chrome, vegetable, and retanned solo leather, B., 70,

Bowker Chemical Co. See Fales, J. H.Bowles, V. O. See Gilliland, E. R.

Bowling, G. A. See Landingham, A. H. van. Bowling, W. S., and Electric Furnace Co., heat-treatment [bright annealing of metals], (P.), B., 279.

Bowman, H., Regan, J. F., and Still, E. U., offect of intravenous injections of aminoacids on motility of the stomach in

normal and fasting dogs, A., 239.

Bowman, J., Harnack, V. L., and United Chem. & Org. Products, increasing viscosity of gelatin, (P.), B., 1114.

Bowman, J. J. See Dix, E. H. Bowman, K. B. See Cape, A. T.

Bowman, R. A., mean temperature difference correction in multi-pass exchangers, B., 671.

Bowman, R. O., Pitts, H. C., Mitchell, P. H., and Ewertz, E., calcium and protein of blood and blister fluid in malignant disease, A., 1538.

Bowyer, C. W., light-weight aggregates, (P.), B., 741.

Box, \hat{W} . \hat{E} . See Electromagnets, Ltd.

Boxer, G. See Kapeller-Adler, R.

Boy, G., energy of growth. XIV. Effect of zinc and manganese salts at toxic concentrations on energy output during germination, A., 122.

Boyce, A. M., citrus red mite, Paratetranychus citri, McG., in California, and its control, B., 1117. and Prendergast, D. T., dinitro-o-cyclo-

hexylphenol in control of citrus red mite, B., 1117.

Boyce, C. M., and Ditmars, J. R., composition for coating sheets, fibrous stocks, etc., (P.), B., 589.

Boyce, J. C., inter-system combination lines of A III, A., 537. Spectra of xenon in the extreme ultra-violet, A., 769.

Boycott, J. A., anæmia in pregnancy, A.,

Boycott, J. H. See Gatensbury, F. GBoyd, E. M., lipin content of the jelly of Wharton, A., 95. Lipin composition and physiological activity in ovaries of pregnant guinea-pigs, A., 361. Extraction of blood-lipins, A., 875. Lipin composition of the guinea-pig placenta, A., 1015. Extraction of lipins from

red blood cells, A., 1282. and Elden, C. A., relation of lipins to cestrin and progestin in the corpus luteum of the sow, A., 527

and Fellows, M. D., blood-lipins during pregnancy in guinea-pigs, A., 1408. and Tweddell, J. H., lipins of human

blood, A., 222.

Boyd, M. C. See Dietz, V. Boyd, M. J. See Tamura, J. T. Boyd, S. S., solution for removing silver from the back of mirrors, (P.), B., 603.

Boyd, T. E. See Zwikster, G. H. Boyd, W. C. See Hooker, S. B. Boyd, W. L. See Eckles, C. H., and Hutt, F. B.

Boye, E., practical fields of application of colloids. II. Colloids in technology, B., 127. Determination of hydrogen eyanide in coal gas, B., 773.

Boye, R., determination of Prussian-blue in gas-purification masses, B., 1027.

Boyer, J. A., treatment of laundry wastes, B., 670.

and Globar Corp., terminal connexion for clectric heating elements, (P.), B., 417. See also Benner, R. C.

Boyer, J. C., and Nat. Listing Exchange, watermarking composition [for paper], (P.), B., 1202.

Boyer, R., and Fürth, O., glucoproteins. I. Determination of glucosamine, A.,

Boyland, E., selective absorption of ascorbic acid by tumour tissue from the guineapig, A., 1142.

and Boyland, M. E., tissue metabolism. VIII. Effect of fumarate and succinate on tumour respiration, A., 367.

and Levi, A. A., metabolism of polycyclic compounds. I. Production of dihydroxydihydroanthracene from anthracene. II. Production of dihydroxydihydroanthraceneglycuronic acid from anthracene. III. Anthrylmercapturic acid, A., 234, 721, 1019. Methylmalonic acid from rat urine, A., 1537.

Boyland, M. E. See Boyland, E.Boyle, C., and Ryan, J. J., experiments on grass silage, B., 617.

Boyle, J. L., metalliferous dyes, B., 489. Boyles, C. H., and Heating Unit Corp.,

[electrical] heating elements, (P.), B., 507. Boyman, E. C., determination of eyanide and thiocyanate in small amounts, as in tailings-pond overflow and seepage, B.,

Boynton, W. P., equations of state and thermodynamic functions for substances with variable specific heat, A., 1191.

Bozel-Maletra Société Industrielle de Produits Chimiques, obtaining bearing-metal surfaces resistant to wear and to seizure, (P.), B., 604.

Bozenko, $A.\ A.$ See Goldovski, $A.\ M.$ Bozóky, L., and Schmid, Reszo, additional first negative oxygen bands, A., 1437. Zeeman effect in the first negative oxygen bands, A., 1437.

Bozorth, R. M., theory of heat-treatment

of magnetic materials, B., 240.

See also Bell Telephone Labs.

Bozza, G., decantation of crystalline suspensions. I. General theory. 11. Characteristic functions. 111. Continuous cylindrical decanting apparatus, A., 47.

and Secchi, I., absorption of radiation by transparent media [glasses], B., 320.

Bozzi, E., "Donaggio phenomenon" in the urine of children affected with muscular dystrophy both at rest and after fatigue, A., 363.

Braadlie, O., determination of iodine in basic slag and mineral fortiliser, B.,

Braae, B. See Blom, J.

Braak, H. R., reduction of particle size of fresh rubber coagulum, with special reference to manufacture of "softened rubber," B., 1168.

Braasch, A. See Braasch, H. Braasch, H., Braasch, H., Braasch, A., and Standard Brands, Inc., yeast, (P.), B., 951.

Braaten, E. O., and Clark, G. F., diffusion of helium through fused silica, A., 281. Diffusion of hydrogen through copper, A., 676.

Brabender, G. I. See Abrams, A.

Brabender G.m.b.H., and Barthels, W., media for combating insect pests, (P.),

Braealoni, L. See Vita, G.

Brace, P. II., what the electric furnace has done for civilisation, B., 1103.

Sec also Westinghouse Elec. & Manuf. Co. Bracewell, S. See Brammall, A.

Brachet, J., synthesis of thymonucleic acid during development of the seaurchin's egg, A., 630.

and Needham, J., metabolism of the frog's egg in course of development. IV. Glycogen content from segmentation to hatching, A., 887. See also Needham, J.

Brachvogel, R. See Feist, K.

Bradbrook, E. F. See Imperial Chem. Industries.

Bradbury, J. II. See Russell, F. C.

Bradbury, N. E., and Nielsen, R. A., absolute values of the electron mobility in hydrogen, A., 540.

Bradfield, A. E., Hegde, B. J., Rao, B. S., Simonsen, J. L., and Gillam, A. E., a-cyperone, a sesquiterpene ketone from the oil of Cyperus rotundus, A., 856.

Jones, E. R., and Simonsen, J. L., sesquiterpene series. III. Synthesis of 1:10-dimethyl-7-isopropyldecal-2one, A., 1258.

Bradford, J. A., Harlan, W. R., and Hanmer, H. R., nature of cigarette smoke; technique of experimental smoking, B., 906.

Bradley, C. F. See Burke, V. Bradley, G. W. J. See Buckley, W. E. Bradley, H., theory of adsorption, A., 155.

Bradley, H. C. See Smith, A. G.

Bradley, L., McKeefe, E. P., and Bradley-McKeefe, Corp., [wood] pulp, etc., (P.), B., 142.

Bradley, R. See Phelps, G. W.

Bradley, R. S., small chemical separation of the chlorine isotopes, A., 540. Cohesion between smoke particles, A., 1198. Polymolecular adsorbed films. J. Adsorption of argon on salt crystals at low temperatures, and determination of surface fields, A., 1457.

Bradley, W., carcinogenic activity and sub-

stantivity, A., 626.
Bradley, W. M. See Foote, II. W. Bradley & Foster, Ltd. Sec Hurst, J. E.Bradley-McKeefe Corporation. See Bradley, L.

Bradner, D. B., and Champion Coated Paper Co., dull-finish coated paper, (P.),

B., 540, 589.

Bradshaw, A. E., moulded articles from fibrous materials, (P.), B., 597.

Bradshaw, P.J. See Blatherwick, N.R.Bradshaw, W. N. See Hothersall, A. W. Bradsher, C. K. See Fieser, L. F. Bradt, W. E., and Linford, H. B., electro-

lysis of aqueous solutions of sodium and zirconyl sulphates. I., A., 1468. Effect of addition salts on electrolytic reduction of 3:5-dinitro-o-cresol, B., 359.

See also Kirk, R. C. Bradway, C. J. See Worrall, D. E.

Brady, C. E., and Burlage, H. M., assay of sulphur ointments, B., 170.

Brady, J. D., combination high-pressure separator and dehydrator [for petroleum emulsions], (P.), B., 359.

Brady, J.J., formation of a potassium film

on silver, A., 1041.

and Jacobsmeyer, V. P., photo-electric properties of sodium films on aluminium, A., 770. Brady, T. G. See Nolan, T. J.

Brackken, H., vacant positions in crystal lattice of ferriferous zinc blende, A., 412. Braem, $K_{\cdot \cdot}$, distribution of gases or vapours in liquids or other fluids, (P.), B., 1024.

Braeuer, E., book-binding material simulating the appearance of leather, (P.), B.,

Bragagnolo, G., and Carraro, E., hyperthermal springs of Colli Euganei, A.,

Bragg, G. A. See Koppers Co. of Delaware. Bragg, (Sir) W. H., molecular structure of dielectrics, A., 141. Electric properties of crystals. I. and II., A., 1321.

Bragg, W. L., structure-factor graphs for

crystal analysis, A., 1325. and Williams, E. J., effect of thermal agitation on atomic arrangement in alloys. II., A., 24.

Brahmaehari, B. B., nutritive value of mustard oil, A., 368. Values of constants in analysis of ghee for detection of

adulteration, B., 426.

Braidwood, G. L., steaming in horizontal retorts, B., 83.

Brainerd, F. W., testing of wood pulp for moisture, B., 405.

Brajnikov, B., constitution of Normandy

flintstone clay, A., 959.

Braker, W., and Christiansen, W. G., mercury derivatives of azo-dyes, A.,

Brakss, N. See Straumanis, M. Brallier, P. S., and Niagara Smelting Corp., stabilising carbon tetrachloride, (P.), B., 683.

Brambilla, M., and Balbi, G., polymerisation of some [Italian] vegetable oils, I. Grape-seed oil. II. Tomato-seed oil. III. Rape-seed oil, B., 892, 1003, 1165.

Brame, J. S. S., lubricants: recent develop-

ments, B., 867. Bramer, H. V. See Eastman Kodak Co. Bramkamp, R. G., protein content of human parotid saliva, A., 1013.

Bramley, A., Born theory of the electron, A., 129. Radioactivity induced by neutron bombardment, A., 132. Forces acting on high-energy protons at collision, A., 1176. Production of cosmic ray showers, A., 1315.

Brammall, A., reciprocal rôle of alumina in

reaction series, A., 1358. and Bracewell, S., variability of garnet in granites, A., 586.

and Dowie, D. L., gold and silver in crystalline rocks of the Malvern Hills, A., 585.

and Rao, B. R., variable composition of cordicrite in the Dartmoor granite, A.,

Bramwell, I. L., Holmes, C. W., and Birtley Co., Ltd., separation of dry materials, (P.), B., 176.

Branch, G. E. K., and Joslyn, M. A., kinetics of autoxidation of pyrocatechol in presence of several foreign substances, A., 167.

See also Nixon, A. C.

Branchen, L. E. See Nadeau, G. F.

Brand, E. See Green, D. F. Brand, J. See Nellensteyn, F. J.

Brand, J. O., energy distribution in backdiffusing cathode rays, A., 955.

Brand, K., and Türck, I., mercuric halides, cyanide, and thiocyanate, A., 1349. Brandaleone, H. See Joliffe, N.

Branden, F. van den, and Geens, J., comparative value of the method of Koser, the Voges-Proskauer test, and the methyl-red reaction to differentiate B. coli of facal and telluric origin, A., 641.

Brandenberger, J. E., and Du Pont Cellophane Co. Inc., luminous [sheet] material, (P.), B., 15.

Vanet, P., and Du Pont Cellophane Co., preventing adhesion of films, (P.), B., 690. . .

Brandenberger, O., welding rod of copper, (P.), B., 376.

Brandenburger, K., textile fragments as resin carriers in phenol plastics, B., 559. Brander, E., compressibility of aqueous

solutions, A., 788. and Tamminen, K., constants in equation of state for rare gases, A., 418.

Brandes, O. L., Gruse, W. A., and Lowy, A., polymerisation of propylene; catalytic action of zinc chloride, A., 819.

Brandonisio, V., composition of olive oil from the islands of Rodi and of Coo, B.,

Brandrup, W., preparation of plant extracts, B., 218.

Brandt, C. W. See Hosking, J. R.

Brandt, E. See Kindler, K. Brandt, K. M. See Euler, H. von.

Brandt, L. G., and Multistamp Co., stencil sheet, (P.), B., 831.

Brandt, O., behaviour of aerosols in the acoustic field. II. Behaviour of suspended matter in oscillating gases at sonic and ultra-sonic frequencies, A., 1337.

and Freund, Hans, separation of suspended particles, (P.), B., 1185.

Freund, Hans, and Hiedemann, E., behaviour of aërosols in the acoustic field. III. Theory of acoustic coagulation, A., 1460.

Brandt, O., and Hiedemann, E., behaviour of aerosols in the acoustic field. I., A., 794. Aggregation of suspended particles in gases by sonic and supersonic waves, A., 1199.

Brandt, W., heavy hydrogen: its importance for study of chemical and biological problems, A., 573. Determination of alcohol in blood, A., 1009. Industrial poisoning, B., 1237.

See also Bürger, M. Brandt, W. H. See Loomis, F. W.

Brandus, E., and N. V. Noord-West Orion Handel Maats., treatment of seeds, (P.), B., 248.

Brandwijk, A.C. See Tasman, A. Brandwood, J., pressure dyeing of silk and rayon fabrics, B., 57. Sizing of viscoserayon crêpe yarn in cakes, B., 315. Steaming of crêpe yarns, B., 734. Dyeing or analogous treatment of [coiled slivers of] textile fibres [on perforated tubes] in the preparatory stages of spinning, (P.), B., 591. Preparation of cops of rayon for dyeing or analogous

fluid treatment, (P.), B., 737.

Branion, H. D., Drake, T. G. H., and
Tisdall, F. F., vitamin-D content of
egg yolk. II. Influence of various
sources of vitamin-D on antirachitic value. III. Antirachitic value of market eggs, A., 256.

See also McConachie, J. D.

Branke, Y. V., and Schavski, T. S., use of fish oil for production of drying oils and lacquers, B., 846.

Brans, P. H., Sumatra [gum] benzoin, B., 517.

Bransky, D. W. See Standard Oil Co. Brard, D., determination of chromium. III. Rapid detection and determination in chrome leather, B., 33.

Brase, K. D. See Tuckey, H. B. Brasefield, C. J., and Pollard, E., transmutation of sulphur by thorium-C' a-particles, A., 1173. See also Pollard, E., and Zeleny, J.

Braselton, C. H., and Sirian Lamp Co., electrical-discharge devices: lamps, radiation devices, rectifiers, relays, etc., (P.), B., 748. Electric-discharge material, (P.), B., 1104.

Brass, K., and Clar, E., uneven halides.
II. Uneven halides of the benzanthrone series, A., 726. [Perylene tri-

bromido], A., 1241.

and Fanta, K., mol. compounds of polycyclic hydrocarbons and their quinones with polynitro-compounds and with metallic salts, A., 325.

Pfinger, R., and Honsberg, K., tetrahydroxydibenzothianthrendiquinone; chemistry of naphthazarin, A., 341.

and Wittenberger, W., chromium compounds from salicylic acid-azo-dyes from o-methoxybenzoic acid, A., 65.

Brassert, H. A., and Brassert & Co., H. A., low-carbon metal [iron], (P.), B.,

See also Brassert & Co., H. A.

Brassert & Co., Ltd., H. A., cracking and coking of distillable carbonaceous materials, (P.), B., 259.

and Brassert, H. A., coking of liquid hydrocarbons and suspensions of carbonaceous materials in liquid hydrocarbons, (P.), B., 1078.

Brassert, H. A., and Colclough, T. P., washing or cleaning of gases, (P.), B.,

1073.

Brassert & Co., Ltd., H. A., and Colclough, T. P., coke ovens and similar apparatus, (P.), B., 84.

and Fisher, A., cracking and coking hydrocarbon oils or tars and mixtures thereof with coal, (P.), B., 868.

Fisher, A., and Brassert, H. A., cracking and coking hydrocarbon mixtures, (P.), B., 1031.

See also Brassert, H. A., Fisher, A., and Koller, M. M.

Brasseur, H. See Grinteu, W. van der. Brasseur, P., X-ray study of anhydrous ferric phosphates, A., 553.

Bratasianu, \hat{C} . P., furnaces for treating ores, (P.), B., 503. Treatment of [iron] ores, (P.), B., 842.

Brateseu. See Manicatide, M.

Bratkowski, W., cottonising of flax and other bast fibres, (P.), B., 926. Bratley, C. O. See Brooks, C.

Bratring, K., production of hollow bodies from cellulose products and other plastic masses, (P.), B., 847.

Bratt, L. C. See Hägglund, E. Brattain, R. R. See Barnes, R. B. Brattain, W. H., specific resistance of

cuprous oxide, A., 139.

Bratton, A. C., jun., Felsing, W. A., and Bailey, J. R., high-efficiency method applicable to certain classes of compounds—amplified distillation, 479.

See also Parker, I.

Bratzler, K. See Eucken, A.
Brau, E. F., 2:7-diaminodibenzfuran as a

reagent for copper, A., 1221.

Braude, S. J., "cut-off" in the plane magnetron with space-charge, A., 540. Motion of electrons in electric and magnetic fields taking into consideration the action of the space charge, A., 656.

Brauer, G., reaction of atomic iodine with quartz glass, A., 174. and Haucke, W., metals and alloys.

XIX. Crystal structure of intermetallic phases MgAu and MgHg, A., 1193. Sec also Beutler, H.

Brauer, O., fire-resistance of temper pots, B., 1100.

Brauer, P., electrical behaviour of cuprite crystals, A., 548.

Brauman, P., new type of vanadyl salicylate, A., 1107.
Braun, A. D., micro-determination of

phosphorus, A., 42. Braun, C. E., and Rees, F. M., Sullivan

colorimetric test for guanidine, A., 1006. Braun, E., treatment of inefficiency phenomena with male hormone, A., 1157.

Braun, F. See Pummerer, R.

Braun, (Mlle.) G., absorption [spectra] of fluorescent substances in different solvents, A., 1178.

Braun, H. A., and Cartland, G. F., toxicity and antipyretic action of d-gluconop-phenetidine, A., 1292. Toxicity of propylene glycol, A., 1554.
See also Lauter, W. M.

Braun, J. von, chemical transformations of constituents of petroleum, B., 1188.

Braun, M.L., coefficient of linear expansion for stretched rubber bands at room temperatures, B., 1057. Braun, W., methods for using rye in

agricultural distilleries, B., 118. and Frey, A., metabolism of Aspergillus niger. I. Effect of phytin on the metabolism, A., 897.

Braun, Winfried. See Senftleben, II.

Braunbek, W., electrical conductivity of compressed metal vapours, A., 147.

Braund, B. K., and Sutton, H., electrodeposition of zinc and cadmium on aluminium and aluminium alloys, B.,

Braune, H., and Linke, R., dielectric constants of mercuric halides, A., 408.

Brauner, L., and Brauner, M., influence of light on permeability of plant tissues to sugar, A., 531.

Brauner, M. See Brauner, L.

Brauns, E. See Bardenheuer, P., and Thanheiser, G.

Brauns, F. E., mechanism of bleaching [of wood pulp], B., 925. Lignin derivatives, B., 979.

Braunsdorf, K., examination and com-

position of ice cream, B., 616.

Bravo, G. A., tellurium electrode, A., 955. Reduction of potassium dichromate with vegetable tanning agents and their byproducts, B., 1169.

Brawley, R. E., p_H of normal resting saliva. I. Variations with age and sex, A.,

Brax, A. J., value of knot-fibres in papermaking, B., 925. Bray, M. W. Sec Pillow, M. Y.

Bray, R. H., origin of horizons in claypan

soils, B., 755.
Bray, U. B., and Atmospheric Nitrogen Corp., apparatus for igniting catalysts, (P.), B., 674.

Beckwith, L. B., and Union Oil Co. of California, asphalt, (P.), B., 85. [Aqueous bituminous] emulsions, (P.), B., 777.

Swift, C. E., and Union Oil Co. of California, treatment of oil [to produce lubricating oil], (P.), B., 731. Lubricating oil, (P.), B., 731, 1139, 1191. Treatment of oil, (P.), B., 731.

and Union Oil Co. of California, asphalt, (P.), B., 85. Treatment of [asphaltic]

oils, (P.), B., 358.
Bray, W. C. See Hershey, A. V.
Brayshaw Furnaces & Tools, Ltd., and Newman, F. C., salt-bath and similar furnaces, (P.), B., 911.

Brayton, G. A., alloys in the zine bath, B., 1210.

Brazie, D. See St. John, J. L.

Brazier, C. E., and Eblé, L., transmission of heat in soil, B., 1010.

Brazier, S. A., use of rubber for chemical equipment, B., 753.

Brdička, R., polarographic studies with the dropping mercury electrode. IV. Influence of circuit resistance on maxima of current-voltage curves. LV. Influence of air on solutions of salvarsan derivatives. LXI. Effect of buffer solutions on the reaction of proteins, A., 32, 1348, 1468. Kinetics of reaction between iodoacetic acid and glycine, A., 940. Kinetics of saponifications of iodoacetic acid by sodium hydroxide and by certain alkaline buffer solutions, A., 1209. Breadner, R. L. Sco Gen. Electric Co.

Brearley, D., Kistiakowski, G. B., and Stauffer, C. H., thermal decomposition of tert.-butyl and tert.-amyl chlorides, gaseous homogeneous unimolecular reactions, A., 295.

Breazeale, J. F., and Crider, F. J., plant association and survival and the build-up of moisture in semi-arid soils, B., 851.

Breazeale, W. M., electro-optical Kerr effect in methane, ethylene, and ethane, A., 666.

Brecht, W., Eberstadt, L., and Kilpper, W. examination of a flotation save all [in the paper industry], B., 141.

and Piretzsehner, H., effect of fillers on

paper strength, B., 268.

Brecht-Bergen, N. See Schleicher, A.

Breckpot, R., polarisation effects in

spectral analysis of zinc and tin, A., 1082. Are support for routine spectroanalysis, A., 1084.

and Mevis, A., quantitative spectral analysis. IV., A., 180.

Breddin, H., origin of Siegerland spathie iron ore veins by lateral secretion, A., 1228. Basis of efficiency of extraction method with different materials, B., 252.

Bredée, H.L. See Cohen, E., and Hermans,

Bredereck, H., carbohydrates and furfuraldehyde. II. Reactions with β methylglucoside and glucose; preparation of β -methylglucoside 2:3diacetate, A., 192.

and Beuchelt, H., phosphatase action of emulsin, A., 521.

and Richter, G., nucleic acids. V. Hydrolytic fissions of yeast nucleic acid, A., 868.

Bredig, G., Gerstner, F., and Lang, H., [asymmetric] catalysis with organic

fibres. II., A., 170.

Bredt, J., Sachse-Mohr theory of configuration of cyclohexane and application of the Bredt rule to tetrahydro[iso]-

phthalic anhydride, A., 1378.

Breeler, W. R., and Ludlum Steel Co., alloy steel for internal-combustion engine

valves, etc., (P.), B., 998.

Breerwood, C. H., and Valley Forge
Cement Co., [Portland cement], (P.),

B., 456. Cemont, (P.), B., 837, 1208.
Bregou, P. Sec Durupt, A.
Brehm, F. Sec Bömer, A.
Brehmer, T., determination of small quantities of an organic substance in

the air, A., 872.

Breidlgam, F. T. See Near, H. B. Breipohl, W. See Clauberg, C.

Breit, G., nuclear stability and isotope shift, A., 403.

and Condon, E. U., photo-electric effect of the deuteron, A., 1041.

and Rabi, I. I., interpretation of present values of nuclear moments, A., 266.

and Wigner, E., Majorana's exchange energy, A., 134. Capture of slow neutrons, A., 658.

See also Condon, E. U., Ostrofsky, M.,

and Wills, L. A.

Breitenbach, J. W., and Raff, R., wall effect in thermal polymerisation of unsaturated esters, A., 822.

Breitner, S. See Fischer, Hans.

Breitwieser, K. See Strohecker, R. Breizy, C. E., chemical compound [for preserving meat], (P.), B., 251.

Brekhus, P. J., and Armstrong, W. D., solution rate of apatite in an average mouth, A., 623. Separation of enamel, dentine, and cementum, A., 1285.

Bremer, O., synthesis of nitrated 2:3dihydropyrimidazole, A., 344.

Bremmer, H., and De Haas, W. J., conduction of heat by some metals at low temperatures, A., 1059. Heat conductivity of superconductive alloys, A., 1059.

See also De Haas, W. J.

Bren, B. C., and Dupont Viscoloid Co., sound record, (P.), B., 464.

Breneman, W. R., effect of gonadotropic hormones on the chick, A., 527.

Brennan, J. B., electrolytic devices, (P.), B., 1214.

Brennecke, C. G. See Giarratana, J.

Brenner, A. See Blum, W.

Brenner, B., platinum thermocouples, B., 105.

Brenner, P., improved wood, B., 934. magnesium-copper-aluminium alloys and their properties, B., 1160.

Brenschede, W., and Schumacher, H. J., preparation and properties of bromine oxide Br₂O, A., 576. Photochemical oxidation of methane, methyl chloride, and methylene chloride sensitised by chlorine, A., 1348.

Brentano, J., intensity of X-ray reflexions from microcrystalline layers, A., 142. Quantitative determination of scattering of X-rays by microcrystalline layers, A.,

Brentano, W. See Meyer, K. H., and Rupe, II.

Breshnev, I. E., effect of fertilisers on development of cabbage diseases, B., 950. Bresnick, H., medicinal preparation, (P.), B., 476.

Bressler, S. M., properties of cow hides tanned with willow and pine solutions or their mixtures, B., 420.

Breton, J., detonation of gaseous mixtures, A., 1343.

and Laffitte, P., limits and speeds of detonation of some gaseous mixtures, A., 432.

Breton, R. See Manceau, P. Bretschneider, O. See Ruff, O.

Brett, C. W., welding in paint plant, B., 995.

Breuer, F. W., chloroform-d (deutero-chloroform), A., 187. s-Tetrachlorodideuteroethane, A., 1090.

Breuer, G., and Schnitzer, J., cyclohexylamine and N-dimethylcyclohexylamine, A., 1372.

and Weinmann, K., destructive distillation of calcium oleate and undecenoate, A., 189.

Breuning, W. See Grube, G.

Breusch, F., and Hofer, E., behaviour of heavy water towards light water in the organism, A., 507.

Brevoort, M. J., combustion-engine temperatures by the sodium line-reversal method, B., 1075.

Brewer, A. K., abundance ratio of isotopes of potassium in mineral and plant sources, A., 400. Mass-spectrographic determination of constancy of at. wt. of potassium in ocean water, A., 400. Existence of ⁵Li, A., 657. Isotope effect in evaporation of lithium, potassium, and rubidium ions, A., 917. Existence of ²²Na, A., 918. Abundance ratio of the isotopes of lithium, A., 1171. Existence of ⁴⁰K, A., 1440.

Brewer, A. L. See Brockman, C. J.

Brewer, E. D. See Elsberg, C. A. Brewer, F. M., and Baker, E., extraction of indium from cylindrite, chalcopyrite, and metallic tin, A., 1349. Are spectrographic determination of indium in minerals, and association of indium with tin and silver, A., 1353.

Brewer, G. See Larson, P. S.

Brewer, L. See Hazlehurst, T. H., jun. Brewer, Nathan. Sce Davis, J. E.

Brewer, Nathaniel. See Sharples Specialty

Brewer, P. H. See Kraybill, H. R. Brewster, J. A. See Smithfield & Argentine Meat Co.

Brewster, J. F., simplified apparatus for technical sugar colorimetry, B., 854.

Brewster, O. C. See Standard Oil Co. Brewster, P. D., colouring photographic images, (P.), B., 173. Dye-mordanting processes for colouring photographic silver images, (P.), B., 955. Colour kinematography, (P.), B., 955. Removal of latent abrasion marks from photographic emulsions, (P.), B., 955.

Brewster, R.Q., and Dains, F.B., thiazoles obtained by direct thiocyanogenation, A., 1275.

See also Dains, F. B.

Breyer, B., theory and pharmacological and chemotherapeutic action of auxochromes. I., A., 1292.

Breyer, F. G., mechanical zine oxide furnace, B., 986.

Breyre, A., evolution of firedamp in Belgian coal mines, B., 1025.

Brezina, E., Schmidt, W., and Schwabl, W., action of fume-chambers, A., 1355.

Březina, J., and Heyrovský, J., polarographic studies with the dropping mercury cathode. LVIII. Electro-reduction of dicyanogen and oxamic acid, A., 683.

Briancourt, ageing of tars, B., 355.

Briand, M., influence of temperature on inflammation limits of combustible vapours in air, B., 728.

Briart, L., determination of soluble saccharides in feeding-stuffs, B., 74.

Briau, A. See Terlet, H. Brice, R. T., and Strong, J., optical properties of magnesium oxide, A., 1188.

Brichet, R., steeping [nitrocellulose powder] with progressive elimination and recovery of solvent, B., 764.

Brick Trust, Ltd., manufacture of synthetic balsam by condensation of phenols with aldehydes, (P.), B., 752.

and Leroy, A. R., treatment of fibrous materials for rendering them impermeable to liquids and fireproof, (P.), B., 189.

Brickwedde, F. G., Scott, R. B., and Taylor, II. S., difference in vapour pressures of ortho- and para-deuterium, A., 21. See also Silsbee, F. B.

Bridge, E. M., and Noltie, H. R., action of adrenaline on the respiratory quotient, A., 525.

Bridgeman, O. C., utilisation of ethyl alcohol-gasoline blends as motor fuels, B., 1076.

Bridger, G. L. See Scott, A. F. Bridges, R. W. See Churchill, H. V.

Bridgman, P. W., polymorphism, principally of the elements, up to 50,000 kg., A., 146. Effects of high shearing stress combined with high hydrostatic pressure, A., 146. [Transitions produced in bismuth and phosphorus at very high pressure, A., 146. Melting curves and compressibilities of nitrogen and argon, A., 279. High-pressure phenomena, A., 558. High-pressure transitions of bismuth [and antimony], A., 1328.

Bridgwater, E. R., economics of synthetic

rubber, B., 705.

Briegleb, G., significance of non-localised linkings ("[p]-electron cloud'') of aromatic hydrocarbons in formation of their molecular compounds with dipolar molecules, A., 410.

Briegleb, G., and Kambeitz, J., binding energies of molecular compounds of monoand di-phenyl-polyene- and -polyine hydrocarbons with s-trinitrobenzene, and physical nature of secondary valency

forces, A., 781.

Brien, R. M. See Neill, J. C.

Brierley, W. G., absorption of water by the foliage of some common fruit species, A., 1432.

Brieu, T. See Santenoise, D.

Brigando, J., Champ, and Closson, calcium phosphates in milk, B., 120.

Briggs, C. W., and Gezelius, R. A., solidifieation and contraction in steel castings. 11. Free and hindered contraction of cast carbon steel, B., 644.

Briggs, L.H., and Peak, D.A., resinol from matai (Podocarpus spicatus), A., 858.

Peak, D. A., and Woolloxall, J. L. D., constitution of matairesinol, A., 207. Briggs, R. M. See Kodak, Ltd.

Briggs & Stratton Corporation. See Brown, Jerome.

Brigham, H. R. See Sheppard, S. E. Bright, H. A. See Fowler, R. M.

Brigl, P., and Widmaier, O., carbohydrates. XX. New syntheses of gentiobiose and

1-β-glucosidofructose, A., 827.
Brikker, F., and Berman, E., resorption of sunflower-seed protein, B., 857.

Brikov, G. E., age and conditions of formation of brown coals in the Upper Zeya plain, A., 701. Brill, H. C. See Foulk, C. W.

Brill, J., fall in body-temperature in birds after administration of pyrogenic substances, A., 1022. See also Allers, R.

Brill, J. L. See Du Pont de Nemours & Co., E. I.

Brill, P. B., Ellis, G. H., and Insulite Co., composite construction material, (P.), B., 992.

Brill, R., mesomorphic state of soaps and washing agents, B., 1003.

and Halle, H., physical methods in the chemical laboratory. XXVII. Applieation of röntgenographic methods to chemical problems, A., 181.

Brillié, II., oiliness, B., 356.

Brillié, J. See Granjon, R.

Brillouin, L., superconductivity and other low-temperature phenomena, A., 147. Variations in current in a conductor, A., 416.

Brinck, J., technique of diastase determination in blood according to Ottenstein, A., 378.

See also Baltzer, F.

Brindle, H., and Rowson, J. M., apparent viscosity and suspending power of mucilage of tragacanth and evaluation of

tragaeanth gum, B., 1121. Brindley, G. W., X-ray examination of atomic vibrations in zinc and cadmium, A., 412. X-Ray investigation of atomic vibrations in zinc, A., 538. Atomic scattering factors of aluminium. nickel, and copper for Cu Ka radiation and their relation to the theory of X-ray dispersion, A., 538. Atomic scattering factor of cadmium for Cu Ka radiation, A., 770. Asymmetry in metallic zinc and cadmium, A.,

and Hoare, F. E., diamagnetic susceptibilities of salts forming ions with inert gas configurations. II. Alkaline halides, A., 278.

Brindley, G. W., and Spiers, F. W., atomic scattering factors of nickel, copper, and zine, A., 3. X-Ray examination of lattice distortion in copper and nickel powders, A., 15.

Spiers, F. W., and Hoare, F. E., X-ray and magnetic measurements of KCl powders in relation to lattice distortion and photochemical coloration, A., 15.

Briner, E., and Bever, (Mlle.) B., ozone as oxidising catalyst. X. Ozonisation of ferrous ammonium sulphate and of

stannous chloride, A., 570.

and Lardon, A., ozone as oxidising catalyst. XI. Ozonisation of aliphatic aldehydes in different solvents and in the gaseous state. XIII. Rate of transformation of systems obtained by ozonisation of aldehydes, A., 1075, 1346.

and Perrottet, E., Raman spectra and constitution of ozonides, A., 407.

Perrottet, E., Paillard, H., and Susz, B., Raman spectra and decomposition reactions of ozonides; ozonides of isocugenol methyl ether, eugenol methyl and ethyl ether, ethyl malcate and fumarate, A., 839.

Perrottet, E., and Susz, B., Raman spectrum and constitution of ozonides; Raman spectrum of ozonides of ethyl maleate and fumarate, A., 1445.

Siegrist, B., and Paillard, H., chemical action of electric discharges. XI. Production of nitric oxide by the electric are at high frequency in mixtures of nitrogen and oxygen at reduced pressure, A., 1348.

Susz, B., and Rod, E., concentration maximum of endothermic compounds at high temperatures; application to ozone and nitric oxide, A., 159, 427.

Wakker, C. H., Paillard, H., and Carrisson, G., chemical action of electric discharges. IX. Effect of addition of alkali and alkaline-carth metals to the electrodes on yield of nitric oxide in industrial furnaces, A., 571.

See also Siegrist, B., Susz, B., and Wakker, C. H.

Brink, C. G., ore treatment at the reduction works of the Transvaal Gold Mining Estates, Ltd., B., 936.

Brink, H. See Haarmann, W.

Brinker, F. A., floating gold in sulphide ores by the Brinker process, B., 325. Flotation, (P.), B., 153. Differential froth flotation [for antimonial pyritic ores], (P.), B., 796.

See also Ruth, J. P., jun.
Brinker, H. S., and Thomas, W. B., gastight seals in the pistons of internalcombustion engines, (P.), B., 1025*.

Thomas, W. B., and Motor Seal Corp., gastight seals, (P.), B., 674. Vermiculite paste for sealing pistons, (P.), B., 674.

Brinkhous, K.M. See Warner, E.D.Brinkman, H., dependence of intensities of rotation lines of a band on the conditions of excitation, A., 1437. See also Ornstein, L. S.

Brinkman, R., and Jonxis, J. H. P., occurrence of several kinds of hæmoglobin

in human blood, A., 495.

and Steinfoorn, J. van, ultrafiltration and concentration by ultrafiltration by a centrifuge method, A., 1085.

Brinton, P. H. M. P., control of high lights in reading microbalance swings, A., 583.

Brintzinger, H., ion hydration and aquocomplexes, A., 159. Hydration of ions, A., 935.

and Eckardt, W., thiosulphato-compounds. I., A., 691.

and Osswald, H., new group of complex compounds; compounds with a complex anion, the central ion of which is a complex cation. III. Complex phosphato-anions with complex cobalt cations as central ions. IV. Doubleshelled arsenato-complex compounds with complex cobalt cations as central ions, A., 41, 175. Complex ions [of ferro- and ferri-cyanides] and prussiand prusso-compounds, Structure of complex compounds, A., 175.

and Ratanarat, C., complex aquo-phosphate ions with several [solvent

molecule] shells, A., 1066.

Ratanarat, C., and Eckardt, W., methods of dialysis. IV. Independence of ionic weight determination on the $p_{\rm H}$ of the solution to be dialysed, A., 1066. and Schall, A., determination of weight of organic dye ions by the dialysis

method, A., 160.

Schall, A., and Beier, H. G., maximal adsorption. I. Maximal adsorption of sparingly soluble acids and bases by different active charcoals, A., 283.

Schlegel, H., and Bubam, W., action of reservoirs in water purification, B.,

397.

Brion, J. See Simomin, P.

Brioux, C., and Jouis, E., manurial action of magnesium, B., 35, 114. Comparative action of lime and magnesia on clay and humus colloids [in soils], B., 245. Effect of degree of ripening of cheese on per-centage of fat, B., 250. Nitrification on silty soils of the plateau of the Pays de Caux, B., 340. Effect of boron on sugar-beet disease, B., 1061.

Brischke, G. W. A., tests on "Diskus" laminated wort-coolers, B., 901.

Briscoe, B. See Kratz, G. D.

Briscoe, G., antagonism between curarine and prostigmine, and its relation to the myasthenia problem, A., 634.

Briscoe, H. T. See Gore, R. C. Briscoe, H. V. A., cooking of drying oils and varnishes, (P.), B., 1107. See also King, A.

Briskas, S. B. See Lesné, E.

Brissaud, L. See Dalmon, R.

Bristol University, Staff of the Preventive Medicine Department, examination of pasteurised milk, B., 249.

Bristow, C. A. See Adcock, F. Bristow, W. A., liquid fuel from coal obtained by low-temperature carbonisation, B., 965.

See also Low Temp. Carbonisation.

British Aluminium Co., Ltd., metallic surfaces and thin films with particular reference to aluminium, A., 273.

and Derbyshire, S. F., basic aluminium sulphate, (P.), B., 495.

Brit. Bêmberg, Ltd., spinning of artificial silk, (P.), B., 690.

Brit. Celanese, Ltd., treatment [lubrication] of filaments, threads, foils, fabrics, etc., of organic derivatives of cellulose, (P.), B., 15. Conditioning [oiling] of filaments, yarns, fibres, and similar materials, (P.), B., 17. Treatment of pile fabrics, (P.), B., 99. Treatment of textile materials, (P.), B., 100, 450, 692.

Brit. Celanese, Ltd., resins [from carbohydrates] and of [cellulose acetate] plastic compositions containing them, (P.), B., 110. Cellulose, (P.), B., 142. Jig-dyeing or similar fabric-treating processes, (P.), B., 143. Concentrated lower aliphatic acids, (P.), B., 182. Utilisation of cool gases in connexion with manufacture of artificial filaments, (P.), B., 187. Manufacture and treatment of cellulose derivatives, (P.), B., 187. [Dycd] artificial materials, (P.), B., 189. Manufacture and use of organic esters, (P.), B., 263. Manufacture and coloration of artificial filaments, films, foils, etc., (P.), B., 270. [Crimped, etc.] artificial filaments, fibres, threads, yarns, and similar materials, (P.), B., 270. Coloration of textile materials, (P.), B., 271. Manufacture or treatment of textile materials and of films, foils, etc., (P.), B., 272. Coating of materials, (P.), B., 287. [Plasticimpregnated] artificial materials, (P.), B., 288. Filaments, yarns, bristles, straw, and similar materials having a basis of organic derivatives of cellulose, (P.), B., 450. Cleansing of textile materials, (P.), B., 451. Cellulose derivatives, (P.), B., 491. Artificial filaments, yarns, etc., (P.), B., 539. Threads, films, and similar articles, (P.), B., 588. Yarns, threads, etc., containing staple fibre made containing an organic derivative of cellulose, (P.), B., 591. [Stable] esters of cellulose, (P.), B., 637, 690. Flexible laminated materials, (P.), B., 637. Treatment of [removal of liquids from] cellulose derivatives, (P.), B., 690. Treatment [shrinking] of textile fabrics, (P.), B., 692. Safety glass, (P.), B., 739. Plastic materials having a basis of a cellulose derivative, (P.), B., 752. Conditioning [lubricating] artificial textile and other materials, (P.), B., 788. Insulation of electrical materials, (P.), B., 798. Organic esters of cellulose, (P.), B., 830. Treatment [stiffening] of textile fabrics containing organic derivatives of cellulose, (P.), B., 830. [Sizing] treatment of textile materials, (P.), B., 832. Coloured products [cellulose derivatives pigmented with vat dyes], (P.), B., 878. Artificial textue materials, (P.), B., 881, 927. Artificial filaments and similar materials, (P.), B., 881. Production of effects on fabrics, foils, films, fibres, etc., containing cellulose esters or ethers, (P.), B., 882. Pigmented cellulosederivative compositions and artificial filaments, films, lacquers, plastic masses, and other materials containing them, (P.), B., 895. Treatment [lubrication] of textile materials [yarns], (P.), B., 926. Lubricated artificial filaments, yarns, etc., (P.), B., 927. Thermoplastic compositions and mouldings having a cellulose derivative basis, (P.), B., 944. Textile fibres, (P.), B., 984. Coloration of textile or other materials, B., 1035. Cutting of fabrics made up of or containing yarns of thermoplastic materials, (P.), B., 1088. Treatment [coloration or lubrication] of textile

or other material, (P.), B., 1148.

Brit. Celanese, Ltd., [stiffened] fabrics, (P.), B., 1148. Treatment of textile filaments, yarns, and other materials, (P.), B., 1149. Concentration of aliphatic acids, (P.), B., 1193. [Device for] dyeing and similar treatment of hose and other shaped textile articles, (P.), B., 1205. Dressing of textile materials, (P.), B., 1205. Composite [thermoplasticcontaining] materials, (P.), B., 1219.

Allan, J., and Wainwright, J. A., production of effects on filaments, yarns, straws, etc., or fabrics containing such materials, (P.), B.,

Dreyfus, H., and Finlayson, D., cellulose acetate filaments and threads, (P.), B., 142. Artificial threads, films, etc., (P.), B., 142. Crêpe threads and crêpe fabrics, (P.), B., 142.

Dreyfus, H., Finlayson, D., and Perry, R. G., textile materials, (P.), B.,

Dreyfus, H., Finlayson, D., and Stafford, C. E., crêpe threads and crêpe fabrics,

(P.), B., 142.

Dreyfus, H., and Moncrieff, R. W., treatment of artificial filaments, threads, ribbons, fabrics, and other textile materials, (P.), B., 541. Manufacture or treatment of artificial

textile materials, (P.), B., 541.

Dreyfus, H., Moncrieff, R. W., and
Hill, F. B., cellulose acetate filaments and threads, cellulose ester and ether filaments, threads, foils, etc., cellulose acetate textile materials, (P.), B., 142. Treatment of filaments, fabrics, films, and other materials having a basis of cellulose esters, (P.), B., I149.

Dreyfus, H., Moncricff, R. W., Menzer, S. J., and Eccles, T., crêpe threads and fabrics containing artificial fila-

ments, (P.), B., 96.

Dreyfus, H., and Taylor, W. I., treatment of filaments, films, and similar materials containing organic derivatives of cellulose, (P.), B., 142. Ellis, G. H., and Kirk, E. W., treatment

of fabrics [to impart scroop finish

thercon], (P.), B., 638.

Ellis, G. H., and Wesson, A. J., coloration of [textile] materials, (P.), B., 983.

Finlayson, \tilde{D} ., and Happey, F., crimped filaments, yarns, or fibres, (P.), B., 313.

Finlayson, D., and Stafford, C. E. treatment [weighting] of artificial filaments, yarns, ribbons, and similar materials, (P.), B., 190. Treatment [sizing] of textile materials, (P.), B., 1205.

Guyler, A. F., and Boaler, W. H., treatment of [knitted] fabrics [to facilitate rolling], (P.), B., 190.

and Jones, J. E., [stabilisation] of cellulose esters, (P.), B., 926. Kinsella, E., and Addy, C. W., filtering

apparatus, (P.), B., 480.

Mellor, A., and Mann, R. J., glossing of textile materials [containing organic derivatives of cellulose], (P.), B., 591. Treatment [pre-embossing] of [crêpe] textile materials, (P.), B., 832. Mellor, A., Mann, R. J., and Greenwood,

E. L., treatment of textile materials.

(P.), B., 96. and Miller, B. E. M., ornamental compound sheet materials, P.), B., 1203.

Brit. Celanese, Ltd., Moncrieff, R. W., and Hill, F. B., saponification of organic esters of cellulose, (P.), B., 187. Treatment of materials comprising filaments, threads, ribbons, etc., of organic esters of cellulose, (P.), B., 187. Artificial filaments, threads, etc., (P.), B., 539. Threads, foils, and similar materials, (P.), B., 539.

Moncrieff, R. W., and North, C. W. artificial textilo materials [yarns of

varying denier], (P.), B., 96.

and Moss, W. H., treatment [de-electrification] of films, foils, etc., (P.), B., 981. [Adhesive] condensation products [hydroxy-esters], (P.), B., 1219.

Oxley, H. F., and Thomas, Edward B., recovery of acidic and basic reagents,

(P.), B., 872.

Oxley, H. F., Thomas, Edward B., and Dreyfus, $H_{\cdot \cdot}$, recovery of ammonia and amines from their salts with organic acids, (P.), B., 89.

Reeves, G., Olpin, H. P., and Ellis, G. H., anthraquinone derivatives, (P.), B.,

686.

and Rivat, G., treatment [with synthetic resins] of cellulose textile materials [to increase their affinity for acid and basic dyes], (P.), B., 929. and Taylor, W. I., manufacture from

continuous filaments of a continuous product containing staple fibre, (P.),

B., 1202.

Brit. Coal Distillation, Ltd., Hardy, R. D., Machen, C., and Aram, E. H. G., heat exchangers, more particularly intended for treatment of solid carbonaceous residue of distillation or carbonisation processes, (P.), B., 916. Distillation or heat-treatment of solid carbonaceous materials, especially briquettes, (P.), B., 968.

Brit. Driver-Harris Co., Ltd., electric insulation of [nickel-chromium-iron alloy]

wire, (P.), B., 504.

Brit. Electrical & Allied Industries Research Association, and Thomas, A. M., colloidal dispersions, (P.), B., 941.

Brit.-Geco Engineering Co., Ltd., Gayford, E., Heginbotham, J. H., and Hamilton, P. D. P., separation of materials by froth flotation, (P.), B., 400.

Brit. Hartford-Fairmont Syndicate, Ltd., and Wardley, T., [burners for glass] furnaces, etc., (P.), B., 933.

Brit. Heat Resisting Glass Co., Ltd., and Geil, P. V. W., moulded glassware, (P.), B., 595.

Brit. Industrial Solvents, Ltd., Langwell, H., and Maddocks, C. B., synthetic resins [from methylisobutylcarbinol and phenols], (P.), B., 1167.

Brit. Insulated Cables, Ltd., electrolytic etching machines, (P.), B., 1051.

Brit. " New-Wrap " Co., Ltd., and Monbiot, M. F., moisture proofing of cellulosic material in sheet form, (P.), B., 100. Cord from regenerated cellulose or a cellulose compound, (P.), B., 270.

Brit. Non-Ferrous Metals Research Association, Hanson, D., and Slater, I. G., casting of aluminium and its alloys, (P.), B., 155.

Brit. Plastics Year Book, Westinghouse method of plasticity testing, B., 286.

Brit. "Rema" Manufacturing Co., Ltd., and Howden, P., mixing of fluids and powders, or granular substances, (P.), B., 352.

Brit. Thermostat Co., Ltd. See Payne,

Brit. Thomson-Houston Co., Ltd., refining of mineral oils, (P.), B., 8. Resistance materials, (P.), B., 157. Refining of halogenated hydrocarbons, (P.), B., 181. [Selenium] photoelectric cells, (P.), B., 203. Foam-preventing apparatus for treatment of liquids in vacuum, (P.), B., 224. Oxide-coated cathodes for gaseous electric-discharge tubes, (P.), B., 283. Synthetic resins, (P.), B., 287. Mercury boilers, (P.), B., 304, 575. Mercury power plants, (P.), B., 304. Cellulose masses, (P.), B., 314. Testing ferromagnetic substances, (P.), B., 331, 845. Alkali-metal vapour electric-discharge device, (P.), B., 333. Electric-discharge lamps, (P.), B., 333, 748. Electric resistances, (P.), B., 334. Scaling of glass to metal, (P.), B., 371, 790, 933. Frictional material, (P.), B., 401. Organic fluorine compounds [for use as dielectrics], (P.), B., 487. Artificial cellulosic products containing nitrogen, (P.), B., 491. Apparatus for heat-treating sheet metal, (P.), B., 503. Carrying out chemical reactions by means of electric discharges, (P.), B., 507. Electric insulating material [asbestos board], (P.), B., 508. Dielectric materials, (P.), B., 508. Alloy for deoxidising silicon steel, (P.), B., 552. Hard alloys, (P.), B., 553. Thermionic electron-emissive electrodes for gas or vapour electric-dischargo devices, (P.), B., 606. Insulation of electric conductors, (P.), B., 606. Formation of ceramic products, (P.), B., 643. Non-inflammable and nonhygroscopic fibrous material, (P.), B., 737. Electric-discharge devices, (P.), B., 748, 1052. Mercury-vapour condensers, (P.), B., 317. Ceramic bodies forming parts of electric-discharge devices, (P.), B., 933. [Iron powder] magnet cores, (P.), B., 936. [Heat-] treatment of silicon steel [transformer sheets], (P.), B., 937. Electrical contacts, (P.), B., 940. Dielectrics in electrical apparatus, (P.), B., 940. Lubricating and adhesive composi-tions, (P.), B., 970. Copper alloys, (P.), B., 1047. Electric furnaces, (P.), B., 1051. Electric capacitators, (P.), B., 1052. [Electrode structures for] gaseous electric-discharge devices, (P.), B., 1052. Treatment [moulding] of cellulosic materials, (P.), B., 1087. Insulating materials for covering electric conductors, (P.), B., 1103. Corrosion-proof coatings for cables, etc., (P.), B., 1163. Treatment of hard metal [carbide] compositions [for crushing], (P.), B., 1212. Electrodes for electric-discharge devices [containing metallic vapour, e.g., mercury], (P.), B., 1214. and Biggs, L. R., heating elements for mercury boilers, (P.), B., 128.

Davies, L. J., and Fenwick, C. E., vacuum tubes or electric-discharge devices, (P.), B., 606.

Davies, L. J., and Scott, W. J., electricdischarge lamps, (P.), B., 748.

Fairbrother, J. A. V., and Scott, William J., glass surfaces of alkali-metal vapour or similar [electric-]discharge devices, (P.), B., 1104.

Brit. Thomson-Houston Co., Ltd., and Gen. Electric Co., vapour electric-discharge devices, (P.), B., 556. and Knight, H. de B., electric-discharge

devices, (P.), B., 941.

Parker, W. B., and Jones, I., [electrically] testing fatigue strength of material, (P.), B., 606.

and Scott, William J., electric-discharge

lamps, (P.), B., 941.
Smeaton, T. F., Scott, William J., and
Knight, H. de B., electrodes for electric-discharge devices, (P.), B., 1104.

Brit. Titan Products Co., Ltd., impregnated fibrous materials, (P.), B., 982. Titanium pigments, (P.), B., 1057, 1109.

Britt, L. C., [determination of sulphur in] sulphur ointment, B., 123.

Britton, E. C. See Dow Chem. Co. Britton, H. T. S., and Jarrett, M. E. D., physicochemical studies of complex formation involving weak acids. XIV. Complex formation between malonates of the heavy metals and of sodium, A., 160. Complex formation involving weak acids. XVII. System oxalate-thorium oxalatewater at 25°, A., 1465.

and Moss, A. A., complex formation involving weak acids. XV. Optical rotation of l-malic and l-lactic acids during neutralisation with sodium hydroxide. XVI. (a) Isotherms at 18° of the systems: sodium oxalatecopper (or zinc or magnesium) oxalatewater; (b) solubility of copper, zinc, and magnesium oxalates in solutions of oxalic acid and sulphuric acid; (c) potentiometric investigation of the complex anion, $Cu(C_2O_4)_2^{-\prime\prime}$, A., 1459, 1465.

and Williams, W. G., electrometrie studies of the precipitation of hydroxides. XIII. Reactions between silver nitrate and methylamine, mono-, di-, and triethylamine, ethylenediamine, aniline, and pyridine in solution, A., 293.

Britton, S. C., resistance of galvanised iron to corrosion by domestic water supplies. B., 236. Electrolytic test for zinc coatings on [iron] wire, B., 238.

Britton, S. W. See Silvette, H.

Britzke, E., and Volfkovitsch, S. I., concentrated fertilisers from poor phosphates,

Britzke, E. V., Kapustinski, A. F., and Schaschkina, T. I., physicochemical analysis of the system iron-oxygen; revision of earlier studies, applying semipermeable diaphragms, A., 936.

Briusova, L., products of oxidation of hydrazones of camphorquinone and 4-methylcamphorquinone, A., 1114. Nitrogenous derivatives of 4-methylcamphor, A., 1114.

Brivec, A., inversion of isodiazotates into normal diazotates, A., 1244.

Broad, L. F. See Lister Bros.

Broadbent, B. M., comparison of criteria of susceptibility in response of Drosophila to hydrocyanic acid gas. II. Recovery time, B., 1117. See also Bliss, C. I.

Broadbent, F. D., Brown, C., and Harrison, H. A., Currier size tester [for paper], B., 981.

Broadbent, H., cast-iron pipes, (P.), B., 1045.

Broadley, E., use of oil sprays in control of sooty mould of citrus fruits, B., 516. Brocal, M. M. See Moreno-Martin, F.

Broche, H., desulphuration of coal-distillation gases, (P.), B., 533.

Brock, A. S., Meinzer, C. F., and Caldwell, W. L., moulded products, (P.), B., 1111.
Brock, J. W. See Rufener, H.

Brocklebank, E. W., Mitford, W. B., and Lander, C. H., artificial fuel, (P.), B., 7. See also Mitford, W. B., Strevens, J. L., and Swallow, J.

Brocklesby, H. N., fatty acids and their esters. I. Cryoscopy and ebullioscopy of fatty acids. II. Mol. wts. of polymerised esters, A., 1229. Hydrolysis of body oil of [Pacific] salmon, B., 159. Fish oil "stearic acid" in rubber manufacture, B., 1008.

and Bailey, B. E., high-grade feeding oil from pilchards and similar fish, B.,

and Charnley, F., fish oils. III. Hydrogenation of pilchard oil, B., 159.

and Denstedt, O. F., apparatus for drying-

oil research, B., 107. and Harding, K. F., fatty acids and their esters. III. Iodine values by the bromine vapour method, A., 1229. and Moore, L. P., fish oils. II. Decolor-

isation of pilchard oil, B., 159.

Brockman, C. J., and Brewer, A. L., alkaline plating baths containing ethanolamines. I. Copper plating from triethanolamine solutions, B., 746.

and Nowlen, J. P., alkaline plating baths containing ethanolamines. II. Baths containing triethanolamine for direct nickel-plating of zinc. III. Cobaltplating from triethanolamine solutions. IV. Deposition of nickel-cobalt alloys from solutions containing triethanolamine, B., 458, 551.

Brockmann, H., constitution of alkannin, shikonin, and alkannan, A., 79. Antirachitic vitamin from tunny-

liver oil, A., 1161.
and Chen, Y. H., determination of vitamin-D, A., 1162.
and Haase, R., dracorubin, the red pig-

ment of dragon's blood. I., A., 1260. Brocks, G. Sec Litzow, K.

Brockway, L. O., Beach, J. Y., and Pauling, L., electron-diffraction investigation of carbonyl chloride, the six chloroethylenes, thiocarbonyl chloride, a-methylhydroxylamine, and nitromethane, A., 274.

and Cross, P. C., molecular structure of

nickel carbonyl, A., 144. and Jenkins, H. O., molecular structures of the methyl derivatives of silicon, germanium, tin, lead, nitrogen, sulphur, and mercury, and the covalent radii of the non-metallic elements, A., 1451.

See also Carpenter, D. C., Cross, P. C., and Pauling, L.

Brocq, L. F. See Sutton, H. Broda, B., microscopical detection of aleurone granules in flour by staining, B., 344.

Brode, R. B., MacPherson, H. G., and Starr, M. A., heavy particle component of the cosmic radiation, A., 1174, 1441. See also Blackett, P. M. S.

Brodie, J. B., and Macleod, F. L., occurrence of vitamin-B in organs, A., 118. Brodovitsch, A. I. See Kopelevitsch, G. V. Brodowska, H. See Niklewski, B.

Brodski, A. E., and Filippova, N. S., refractions of electrolyte solutions. IV. Complete refraction curve of potassium chloride, A., 424.

Filippova, N. S., and Scherschever. J. M., refraction of solutions of electrolytes, and ionic association, A., 1065. Refraction in solutions of strong electrolytes, A., 1197.

and Scarre, O. C., exchange reactions of hydrogen with deuterium. I. Exchange in carboxyl groups of succinic acid and in hydroxyl groups of quinol, A., 160.

and Skrinnikova, N. P., influence of electrolyte on concentration of heavy water, A., 170.

See also Sack, A. M., and Scherschever,

Brodski, D. A., mechanism of Perkin's

reaction, A., 604.

Broeg, W. E., and Standard Brands, Inc.,
[yeast-free] composition [for leavening baking-powder products] and production of porous material, (P.), B., 570.

Brock, A., and Wolff, L. K., copper, zinc, and manganese content of cows' milk, A.,

1535.

Brocker, J. F., house-paint formulation for the south [of the United States], B., 335. Fading of titanium dioxide

paints, B., 419. Brösamle, A. Sce Kliegl, A. Brösse, W. See Demann, W.

Broeze, J.J. See Boerlage, G.D. Brogdon, E. See Hellebrandt, F.A.

Bromfield, R. J. See Fairley, N. H. Bromund, W. H. See Holmes, H. N.

Bron, V. A. See Kukolev, G. V.

Bronder, H., magnetic minerals and the practical applications of their magnetism, A., 1484.

Broniewski, W., structure of some alloys

of copper, A., 559.

Jablonski, J. T., and Maj, S., solidification diagram of copper-tin alloys, A., 419. Solidification diagram of copper-zinc alloys, A., 675. and Szreniawski, J., influence of tem-

perature and cold-work on mechanical properties of medal bronze, B., 1157.

and Wesolowski, K., gold-copper alloys, A., 559. Bronnikov, A. C. See Postnikov, V. F. Brons, F., dissociation energy of carbon

monoxide, A., 8.

See also Coster, D. Bronstein, I. A., and Wolkensohn, D. V., cholesterol as a constituent of malignant cells, A., 504.

Brooke, H., and Dawson, H. M., progressive elimination of bromine in aqueous hydrolysis of sodium bromoacetate, A., 685.

Brooker, L. G. S., cyanine dyo series. VI. Dyes derived from 2-methyl-

thiazoline, A., 741. and Keyes, G. H., cyanine dye series. III. Improvements in the 2'-cyanine condensation. V. Dyes derived from

9-methylphenanthridine, A., 349, 739. Keyes, G. H., and White, F. L., cyanine dye series. IV. [Thiazolo-2'-cyanines and related compounds], A., 349. and White, F. L., cyanine dye series.

II. Carbocyanines with substituents in the three-earbon chain, A., 348.

See also Eastman Kodak Co., and Kodak,

Brooker, S. G. See Shorland, F. B. Brookes, G. L. See Bennett, G. M. Brookes, M. H. See Cohn, E. W.

Brooks, A. E. See Shinkle, S. D. Brooks, B. T., Schuler, R., and Standard Alcohol Co., synthetic alcohols, (P.), В., 823.

and Standard Alcohol Co., treatment of olefines, (P.), B., 88. Alkyl halides, (P.), B., 1140. Drying of alcohols and esters, (P.), B., 1192.

Brooks, C., Bratley, C. O., and McColloch, L. P., transit and storage diseases of fruits and vegetables as affected by initial carbon dioxide treatments, B., 856.

and McColloch, L. P., storage diseases of grape fruit, B., 810.

Brooks, F. P. See Kyer, J.

Brooks, J., oxidation of hamoglobin to methæmoglobin by oxygen. II. Relation between rate of oxidation and partial pressure of oxygen, A., 92. Oxygen uptake of pork and bacon, B., 250.

Brooks, M., methylene-blue and hamoglobin derivatives in asphyxial poisoning, A., 1400. Mechanism of methylene-blue in carbon monoxide

poisoning, A., 1554. Brooks, S., and Defesta, M. J., application of an ornamental finish to surfaces,

(P.), B., 287.

Brooks, S. C., mosaic collodion membranes as analogues of the plasma membrane, A., 535. Permeability of erythrocytes to deuterium oxide (heavy water), A., 874. Broom, J. C. See Brown, H. C.

Broom, W. A., toxicity and effect on blood-sugar of a number of amidine and guanidine derivatives, A., 1020.

Broom, W. E. J., drainage errors and Utube viscosimeters, B., 436.

See also Garner, Frederick H.

Broomé, B. See Aminoff, G. Brophy, D. H. See Gen. Electric Co.

Brophy, J. J., and Turner Tanning Machinery Co., drying of varnished surfaces, (P.), B., 1109.

Brose, H. L., synthesis of cholesterol in living organisms, A., 1290.

and Jones, E. B., colorimetric determination of phosphorus, A., 1478. Effect of X-radiation on blood, A., 1548.

and Keyston, J. E., collisions of slow electrons with methane molecules, A., 4.

Brosins, E. E., substance [slag] preparation and article of manufacture, (P.), B.,

Brosteaux, J. See Green, David E. Broström, K.J. See Bjerge, T. Brother, G.H. See Boston Blacking Co.

Brough, F. W., insulating material for use in electric-discharge devices, (P.), B., 157

Brough, (Miss) G. W. See Dewar, J.Broughton, G., and Jones, D. C., critical solution temperatures of aliphatic acids with nitromethane, A., 559.

See also Adams, F. W.
Broughton, W. W., Werley, G. L., and
New Jersey Zinc Co., zinc[-base diecasting] alloy, (P.), B., 505.

Brouha, L. See Dulière, W. L.

Broun, D., and Beaune, A., modifications of hypertensive action of adrenaline by colloidal products, A., 385. Modifications of cardiovascular action of acetylcholine by insulin, A., 386.

Broun, D., and Scheiner, H., physicochemical state of the adrenal hormone in the blood, A., 115. Physicochemical state of acetylcholine in the blood,

See also Gautrelet, J., and Tiffeneau, M. Brouwer, E., determination of sodium in urine by sedimentation, A., 1288.

and Dijkstra, N. D., comparative influence of hay and grass, ensiled without mineral acid, on acid-base equilibrium of cattle, A., 628.

and Frens, A. M., graphical aid in practical cattle-feeding. I. Feeding norms for milch cows in the form of nomograms, B., 522.

Sec also De Wildt, J. C. de R. Browsin, I. See Korenchevsky, V.

Brown, A. B. See Standard Oil Co. Brown, A. E. G., analysis of glyptal resins

and varnishes, B., 651.

Brown, A. F., formulation of protective coatings with pigment colours, B., 336. Brown, A. M. See Melville, W.

Brown, A. S., condensation of ethyl β-methyladipate with ethyl oxalate, A., 985.

Brown, A. W. See Chloride Electrical Storage Co.

Brown, A. W. A., excretion of ammonia and uric acid by larvæ of muscoid flies, A., 1537.

and Farber, L., deaminating enzyme of flesh-fly larvæ, A., 1152.

Brown, B. D., and Capstan Glass Co., glass

furnace, (P.), B., 276. Brown, B. E. See Phillips, M. Brown, B. H. See Lewis, H. B.

Brown, B. K. See Standard Oil Co.

Brown, C. See Broadbent, F. D. Brown, C. E., and Yant, W. P., microprojector for determining particle-size distribution and number concentration of atmospheric dust, B., 1.

Brown, C. F. See Hafstad, L. R.

Brown, C. L., and Smith, R. G., histamine like substance in gastric juice, A.,

Brown, C. L. M., solubility of silver nitrate in ethyl and isopropyl alcohols, A., 932. Glycols; use of prepylene glycol as a pharmaceutical solvent, B., 74. iso-Propyl nitrite, B., 74.

Brown, C. W., and Parker, G. V., bricks,

etc., (P.), B., 149.
Brown, D. J. See Samuelson, G. J.
Brown, E. D. See Cone, C. N.

Brown, E. M., and Henriques, V. de F., vinification in Californian wineries, B.,

Brown, E. W., efficiency of "carboxide gas" as insecticidal fumigant for naval and merchant vessels, B., 396.

Brown, F. D., Musser, R. J., Alan, C., and Goldsberry, F. M., dryer, (P.), B.,

Brown, F. E., and Griffiths, F. A., vanadium oxychloride as a solvent. II., A.,

Brown, F. W., distilling cedar-leaf oil, B., 44. Chemistry of natural and synthetic resins. I. Factors encouraging complex molecules, B., 1056.

Brown, F. W. (Illinois), and Cook, R. K., nuclear moment of aluminium, A., 1. Brown, G. E. See Bywater, W. G.

Brown, G. G., distillation, B., 768. See also Pearl, W. A., and Singer, S. C., jun. Brown, G. W. See Huitema, R.

Brown, H., and Klauder, J. V., total sulphur of tissue in normal and abnormal growth (mouse carcinoma). A., 1538.

Brown, H. C., and Broom, J. C., importance of the electric charge in certain aspects of immunity, A., 384. Microcataphoresis. I. Technique, A., 424. Brown, H. F. See Cranston, J. A.

Brown, I. C., and Byers, H. G., chemical and physical properties of dry-land soils and of their colloids, B., 466.

Brown, J., specific value of crude iron compounds in treatment of "pine" in eattle and sheep, A., 232.

Brown, Jerome, and Briggs & Stratton Corp., filter, (P.), B., 722.

Brown, Jerome, Glara, (P.), 2., 777.

Brown, Joseph, filters, (P.), B., 577. Brown, J. F. See Bell, R. P. Brown, J. H. Sec Ingersoll, A. W.

Brown, James H., Durand, H. W., and Marvel, C. S., reduction of aromatic compounds with hydrogen and a platinum oxide-platinum-black catalyst in presence of halogen acid, A., 1369.

Brown, J. S., structure and primary mineralisation of the zinc mine at Balmat, New York, A., 1089. Supergene sphalerite, galena, and willemite at Bal-

mat, N.Y., A., 1357.

Brown, J. W., melting and holding furnace [for metals], (P.), B., 998.

Brown, L., ceramic granules, (P.), B., 545. and Lenox, Inc., porcelain resistant to the passage of X-rays, (P.), B., 1207.

Brown, L. T., and Christensen, L. M., gasoline and alcohol-gasoline blends, B., 775.

Brown, M. V., and Mitchell, A. C. G., β-ray spectra of radioactive manganese, arsenic, and indium, A., 1441.

Brown, O. L. I., Smith, W. V., and Latimer,

W. M., heat capacity and entropy of barium chloride dihydrate from 15° to 300° abs.; heat of solution of barium chloride dihydrate; entropy of barium ion, A., 1340.

Brown, O. W., Hatfield, J. E., and Church, J. M., electrolytic oxidation of sodium arsenite, B., 788.

See also Price, W. P.

Brown, P. E. See Smith, F. B.

Brown, R., ultrafiltration in concentration and purification of pneumococcus specific polysaccharides, A., 1561.

Brown, R. B. See Farley, F. S.

Brown, R. C., ripple method of measuring surface tension, A., 447.

Brown, R. H., and Magnesium Development Corp., duplex [magnesium] metal article, (P.), B., 240.

Willey, L. A., and Magnesium Development Corp., magnesium duplex metal, (P.), B., 999.

See also Aluminum Co. of America.

Brown, R.J. See Howard, J.W. Brown, R.K. See Needham, J.

Brown, R. L., and Atmospheric Nitrogen Corp., catalysts and production of acetic acid, (P.), B., 441. Catalysts and organic acids, (P.), B., 441. Catalysts and production of oxygenated organic compounds, (P.), B., 441.

Brown, R. P., Harrison, T. R., and Brown Instrument Co., apparatus for gas analyses, (P.), B., 224.

Brown, R. S. See Clark, C. L. Brown, S. See Hanson, E. R. Brown, S. M. See Kelley, W. P.

Brown, T., floor, wall, and roof tiles, (P.), B., 149.

Brown, T. T., Mitchell, James W., and Swinney Bros., Ltd., furnaces, (P.), B.,

Brown, W., controlling the temperature in a closed vessel [furnace], (P.), B., 747.

Brown, W. Bernard, and Farmer, E. H., unsaturated acids of natural oils, V. a- and β-Licanic acids, A., 53.

Brown, W. Burns, determination of fumigants. VI. Purity of commercial ethylene oxide in cylinders, B., 1191. Determination of boric acid in dried fruit, B.,

Brown, W. D., sponge iron, (P.), B., 280. Brown, W. L., fluorescence of mangani-

ferous calcites, A., 185.

Brown, W. R., hydrolysis of starch by hydrogen peroxide and ferrous sulphate, A., 594.

Petersen, W. E., and Gortner, R. A.,

variations in lactose content of milk, A., 880.

Brown, W. S., and Jones, J. H., determination of ignition temperature of coke, B., 433.

Brown Co., refining celluloso fibre for conversion into cellulose derivatives, (P.), B., 880.

See also Moore, H. K., Richter, G. A., and Schur, M. O.

Brown Instrument Co. See Brown, R. P. Brownback, II. L., composition for joints,

(P.), B., 1073.

Browne, C. A., normal-weight question in polarisation of sugar-factory products: saccharimetric scale, B., 118.

and Phillips, M., occurrence of methoxyl, ethoxyl, and methylenedioxy-groups in substances of vegetable origin, A., 257.

Browne, F. L., durability of paint on wood treated with zinc chloride, B., 67. Effect of change from linoxyn gel to xerogel on the behaviour of paint, B., 650. Durability of paint on wood; effect of extractive substances in certain woods, B., 702. Paints as protective coatings for wood, B., 846. Browne, H. H., and Hills Bros., Co.,

treatment of fruit juices, (P.), B., 297.

Browne, J. M. See Gotting, H. E. Browne, J. S. L. See Selye, H., and

Venning, E. M. Browne, T. C., rubber printing plates and

other articles of rubber, (P.), B., 1180.

Browne, V. B., and Allegheny Steel Co., magnetic [iron] alloy, (P.), B., 602. Stable chromium-nickel-iron alloy, (P.), В., 646.

Browning, B. L., and Ulm, R. W. K., paper acidity, B., 449.

Browning, C, H., and Gulbransen. chemotherapeutic action on Spirillum minus in mice by certain anil- and styrylquinoline compounds free from metals or metalloids, A., 1029.

Browning, F. M., and Elgin, J. C., surface tension between aqueous and isopropyl ether solutions of acetic acid, A., 155.

Browning, G. M. See Pierre, W. H. Browning, W. J., composition of solids emitted from domestic boiler fireboxes, B., 1074.

Brownlie, D., removal of sulphur from chimney gases, B., 482. Carbonisation of coal-oil mixtures, B., 771. Colloidal fuel, B., 864.

Brownsdon, H. W., metallic wear, B., 279. See also Imperial Chem. Industries.

Broyer, T. C. See Steward, F. C.

Brubacher, W., [paper] pulp, (P.), B., 785. Brubaker, M. M. See Du Pont de Nemours & Co., E. I.

Brubaker, W. M., and Bonner, T. W., slow neutrons, A., 1440. See also **Bonner**, T. W.

Bruce, E. L., and Jewitt, W., heavy accessories of certain pre-Cambrian intrusives

of the Canadian Shield, A., 1088. Bruce, F. M. See Internat. Combustion. Ltd.

Bruce, R. N. B. D. See Gas Light & Coke Co. Bruce, T. See Sundius, N.

Bruce, W. A. See Jauncey, G. E. M.
Bruce, W. F., preparation of platinum oxide for entalytic hydrogenations, A.,

Bruce Co., E. L. See Lyons, F. H.

Bruch, G., and Wirth, E. H., poplar bud, A., 1304.

Bruckner, V., and Krámli, A., synthesis of derivatives of 3-methylisoquinoline, A., 1124.

Bruderlin, E. J., silicon carbide retorts, B., 1094.

Brüchanov, A., analysis of the rolled and recrystallisation texture in sheet iron from moduli diagrams, B., 697.

Brüche, E., electron-optical structural image and emission from barium-nickel cathodes, A., 263.

and Knecht, W., electron-optical observation of transformation of a- into β-iron, B., 1097.

Brück, L., structure of thin metallic films deposited on rock-salt by vaporisation, A., 784.

Brücke, F. T., destruction of cardio-active glucosides by acids and alkalis, A., l415.

Sec also Hicks, C. S.

Brücke, O. See Metallges, Akt.-Ges.

Brückel, K., composition and testing of "EL" varnish, B., 1055.

Brückner, H., analytical examination of gas-purifying materials, B., 306.

and Bender, W., limiting temperature of combustion gases with and without regard to dissociation phenomena of the products of combustion, B., 1075.

and Grevé, H., bright and dull coals, B., 353.

and Hirth, L., alumina gel, its preparation and properties, A., 795. and Löhr, H., "flame performance" of

technical gases as a characteristic of their combustion properties, B., 305. See also Bunte, K.

Brüggemann, E. O. See Schenck, H.

Brüggemann, J., composition of elk's blood, A., 1283.

Brüll, J., kinetics of hydration of some cobalt complexes, A., 940.

Brüll, L., and Girotti, P., colorimetric researches on naphthazarin and dibromonaphthazarin, A., 428. See also Ciusa, R.

Brüll, R. See Kauffman-Cosla, O. Brün, W., and Remington Arms Co., [basic] lead salts of dinitrobenzoic acid and priming compositions containing the same, (P.), B., 173. Priming mixture, (P.), B., 717. Copper ammonium salts of diazoaminotetrazole, (P.), B., 718, 1237. Lead salts of [3:5-dinitrosalicylic acid [detonators], (P.), B., 1237.

Brune, F., the Uchte moorland, B., 466. Potash manuring of meadows on peat soils, B., 467.

Brünger, K. Sec Fischer, Werner.

Brüning, A., and Schnetka, M., detection of trichloroethylene and other halogenated organic solvents, B., 535.

Bruening, C. F. See Jenkins, G. L. Brüning, H. See Sieverts, A.

Bruère, P., filter trains, A., 1085. Brues, A. M., and Cohen, A., effects of colchicine and related substances on cell division, A., 1294.

Jackson, E. B., and Aub, J. C., growth inhibitor in liver, A., 1552.

Bruevitsch, S. V., and Pletnikova, E. I., determination of phosphates in turbid or coloured natural waters, B., 766.

Bruger, M. See Fitz, F., Hartung, E. F.,

and Poindexter, C. A.
Bruggeman, D. A. G., calculation of various physical constants of heterogeneous substances. I. Dielectric constants and conductivities of mixtures of isotropic substances. II. Dielectric constants and conductivities of polycrystals of non-regular systems, A., 151, 550.

Bruggeman, J., and Du Pont Rayon Co., drying [of artificial thread], (P.), B.,

Bruggen, M.~G.~van. See Arkel, A.~E.~van. and Verwey, E.~J.~W.

Brugnens, R., aromatic drugs. I .- III., B., 571.

Brugsch, T., einchophen (atophan) therapy and the liver, A., 891.

Bruguera, R. B., improving the quality of inferior kinds of natural cork, (P.), B., 587.

Bruhat, G., and Weil, L., rotatory power of quartz for rays perpendicular to the optic axis and its dispersion between 2537 and 5780 Å., A., 17. Construction and use of a quartz quarter wave, A., 46. Rotation of the plane of polarisation by oblique crystalline refraction, A., 415.

Bruhn, J. M. See Benedict, F. G.

Bruhns, G., preparation of artificial honey and the order of March 21, 1930, B.,

Bruin, P., total base-exchange capacity of soil and its relation to humus and

clay content, B., 513.

Bruins, E. M., simple lyotropic effects (viscosity), A., 285. Viscosity and lyotropic numbers, A., 679. Physical chemistry of homologous series, A., diagram, 1052.Explosion 1343.

See also Clay, J.

Bruins, R. W., use of polymerides from furfuraldehyde in fabrication of moulded products, B., 419.

Bruk, A. S., and Istomina, K. E., reduction of iron oxides in formation of ferrocoke, B., 50.

and Moisik, M. R., determination of superficial fissureness of cokes, B., 258.

Brukev, A. B., and Soborovski, L. S., oxidation of hydrohalides of phenylhydrazine in presence of copper salts, A., 66.

Brukl, A., electrolytic separation of bivalent europium, A., 436.

Brukner, F., boiler feed-water [for sugar factories], B., 950.

Brull, L., heart-lung preparation with coagulable blood, A., 747. Action of parathormone on urinary elimination of phosphorus, A., 902.

Bruman, F., and Berman, L., diet and thyroid function. I. Effect of cyanides on function and histological picture of the rat thyroid, A., 106.

and Jenny, F., influence of nutrition on metabolism during work. IV.

Calcium, A., 512.

and Mildwurf, A., diet and thyroid function. II. Effect of acetonitrile and potassium iodide on the basal metabolism and histological picture of the thyroid, A., 1020.

Brun, J., and Tronstad, L., germination experiments with peas in heavy water,

Brun, P., relative toxicity of thioeyanate ions, A., 517. Metallic alkoxides, A.,

Bruna, R. See Francesconi, L. Brunauer, S. Sce Emmett, P. H. Brundage, J. T. See Cantarow, A.

Brunelli, A., relation of the organic coefficient of raw beet sugar to the purification of the diffusion juice, B., 854.

Brunelli, G., and Cannicci, G., chemical and biological characteristics of the Lake of Massaciuccoli, A., 699. Bruner, E., and Goehring, M., deterioration

of silks by light of different wavelengths, B., 363.

Bruner, F. H., uraninite from Hottah Lake, A., 958.

Bruner, H. D. See Wakerlin, G. E.

Bruner, J. See Fontès, G. Bruner, W. M. See McMaster, L.

Bruning Co., Inc. See Murck, K. Bruninga, J. H. See Ford, J. W.

Brunjes, A. S., and Furnas, C. C., commercially important systems of organic solvents; vapour-liquid equilibrium data for the ternary system n-butanoln-butyl acetate-water, A., 789.

Brunner, J., high tensile steels for structural purposes, B., 743. Heat-treat-ment of rails, B., 994. Brunner, K. See Bauer, K. H.

Brunner, O., and Baroni, E., constituents of the retina. IV. Flavins of the retina, A., 1287.
Baroni, E., and Kleinau, W., visual

purple, A., 97.

and Grof, F., methylethylnaphthalenes. III. Synthesis of 2-methyl-6-ethyl-

naphthalene, A., 62.

and Kleinau, IV., constituents of the retina. II. Visual purple; reaction mechanism of the bleaching [of visual purple] by light. III. Vitamin-C content of the retina, A., 1287.

and Stein, R., carotenoids of Rana esculenta, A., 97.

and Wiedemann, G., synthesis of octadecyl alcohols with branched chain, A., 52.

Brunner, R., Nernst theorem, A., 930.

Bruno, F., acclimatisation and industrial applications of Cymbopogon flexuosus, Stapf., and of C. martini, Stapf., var. Motia, B., 571.

Brunovski, B. K., and Kunascheva, K. G., radium content of plants and water.

A., 395.

See also Antipov-Karataiev, I.N., Kunascheva, K. G., and Zvjagintzev, O. E.

Bruns, B., and Kostina, E. A., preparation of silica gel from silicon tetrachloride, B., 58.

and Solotarevskaja, E., action of potassium on the mechanism of activation of charcoal, A., 1457.

Bruns. W., nutrient intake and water economy of field beans, B., 210.

See also Lehmstedt, K.

Brunstrum, L. C. See Standard Oil Co. Brunswick-Balke-Collender Co. See Wollaston, W.

Brunt, D., dissipation of fog, B., 959. Brunt, J. P. See under Brunt & Co.

Brunt & Co. See Hans, T.

Brunton, R. O., bread-making processes and machines, (P.), B., 428.

Brus, G., and Vébra, J., synthetic camphor industry, B., 906.

Bruschkin, I. M. See Muschkatblat, M. M. Brush Beryllium Co. See Sawyer, C. B.

Bruson, H. A., condensation of phenols with ethanolamine and formaldehyde, A., 1374.

and Resinous Products & Chem. Co., fungicide [against ringworm], (P.), B.,

Stein, O., and Resinous Products & Chem. Co., salicylic acid derivatives [antiseptics], (P.), B., 574.

Stein, O., and Röhm & Haas Co., octyl-salicylic acid, (P.), B., 685. Preparation of alkylated aromatic ketones, (P.), B., 875.

See also Albert Ges.m.b.H., K.

Brussilovska, A., sensitivity of various animals towards anæsthetics, A., 1146. Brussoff, A., lime-precipitating bacillus and

an iron- and silica-accumulating coccus as stone formers, A., 524.

Brust, E., seasoning means or condiment, (P.), B., 1232.

Brutzeva, C. V. See Tsukervanik, I.

Brutzkus, M., examination of the combustion process in internal-combustion engines, B., 728.

Bruun, B. See Flood, H. Bruun, J. H., bubble-cap columns of glass, A., 956.

and Claffey, L. W., saponification values of asphaltic petroleum residues; pressure-agitation method, B., 865.

and Faulconer, W. B. M., organic combustion apparatus for highly volatile and inflammable liquids, A., 1085.

See also Hicks-Bruun, M. M. Bruynoghe, G., nature of agglutinogens, A., 877. Excretion of agglutinogens [in the saliva], A., 1013.

Bružs, B., thermodynamics of stationary systems. I. Thermo-element. II. Diffusion element, A., 18.

Bryan, A. M., and Smellie, J., estimation of dust in mine atmospheres, B., 699.

Bryan, Charles S., and Rumford Chem. Works, by-product calcium sulphate [from phosphate rock], (P.), B., 18. See also Fiske, A. H.

Bryan, Claude S., and Trout, G. M., influence of streptococcic infection of the udder on the flavour, chloride content, and bacteriological quality of the milk produced, B., 661. Bryan, H. F. See Macht, D. I.

Bryan, J., methods of applying wood preservatives. I. Non-pressure methods, B., 740. Bryan, J. M., comparison between the effect of pH on rate of corrosion of steel in pure oxygen and air at 25°, A., 166.

Bryan, O. C., genesis and morphology of red soils in south-eastern United States, B., 513.

and Neal, W. M., influence of varying amounts of water-soluble phosphorus in different soil types on response of

cultivated crops, B., 708.

Bryant, G. L., and Porter, F. R., effect of mill practice and mill additions on opacity of enamels, B., 408. Comparison of results of different instruments for measuring reflectance, B., 623.

See also Porter, F. R.

Bryant, L. R., alkalis for bottle-washing, B., 543.

Bryant, W. M. D., carotenoid origin of cholesterol, A., 201. and Smith, D. M., influence of structure

on saponification; analytical technique for esters, A., 965.

Bryce, G., evaporation of nickel in a vacuum, A., 1470. Disappearance of carbon monoxide in presence of electrically heated nickel filaments, A., 1475.

Brydówna, W., and Wiszniewski, W., 3:3'-dipyridyl derivatives, A., 212.

See also Kuhn, R.

Bryner, L. C., formation of xylose from pentosan-containing materials, B.,

Christensen, L. M., and Fulmer, E. I., hydrolysis of oat hulls with hydrochloric acid, B., 342.

Bryson, H. C., applications of metallic soaps, B., 700, 1105.

Buaas Mejerimaskinfabrikker, Afdeling af A./S. Frederiksberg Metalvarefabrik. See Olsen, J.

Bubam, W. See Brintzinger, H. Buc, H. E. See Standard Oil Development Co.

Bucciardi, G., photometric micro-determination of iron in blood, A., 1401.

Leonardi, M., and Ferrarini, E., effect of compressed air on animals. XV. Oxygen and carbon dioxido in expired air of the rabbits subjected to the action of compressed air, A., 756.

Buch, D. N., acid demulsification of the Kala crude oil, B., 483. Refinery washing of Surachani and Karachuchur crude oils with water, B., 626.

Buchan, J. L., chemical balances, A., 182. Buchanan, G. H., Winner, G. B., and Amer. Cyanamid Co., recovery of hydroeyanic acid [from calcium cyanide], (P.), B., 18.

Bucher, J. E., and Antioch Industrial Res. Inst., recovery of beryllium compounds [chloride], (P.), B., 274. Separation of [beryllium from] silica, (P.), B., 988.

Bucherer, H., microbial decomposition of chitin, A., 383. and Meier, F. W., influence of fluorine on

precipitation of phosphoric acid with molybdic acid, A., 303.

Buchholez, J., quinone-gelatin gels, A., 29. Buchholtz, H. See Offerman, E. K. Buchholz, E., preparation of "Fliesskohle"

[suspensions of coal in oil] from browncoal dust and brown-coal tar oil, B., 675.

Buchkremer, J. See Weltzien, W. Buchman, E. R., vitamin-B₁. XIV. Sulphite cleavage. IV. The thiazole half,

Ā., 1394.

Buchner, G., formation of wax within the organism of bees, A., 228. Surface colouring of metals, B., 328. Systematic tests for metal coatings, B., 746. Buchta, E. See Pummerer, R.

Buchta, J. W. See Goetz, A.

Buchthal, F., and Knappeis, G. G., influence of grain size, separation, and distribution on capability of enlargement of photomicrographs of biological objects, A., 1348,

Buchthal, F., and Lindhard, J., electrostatic measurements on single motor end-plates and muscle fibres. II. Effect of curare poisoning and radium irradiation, A., 1019.

Buchwald, E., and König, H., dynamic surface tension from liquid bells, A., 1085.

Buck, A. J. See Birkbys, Ltd.

Buck, J. S., laboratory thermoregulator, A., 814. N-Arylbarbituric acids. I. and II., A., 1125, 1522.

and Ferry, C. W., preparation of carbamides, A., 829.

and Ide, W. S., veratronitrile (3:4-di-

methoxybenzonitrile), A., 469. See also DeBeer, E. J., and Snyder, H. R. Buck, K. E., and Ross-Tacony Crucible Co.,

refractory article, (P.), B., 695. Buck, R. E., and Fellers, C. R., red squill investigations; red squill extracts as rat poisons, B., 174.

See also O'Connor, M.G.Buckingham, R.A. See Massey, H.S.W.Buckingham, S. A., sampling beaters for consistency [of paper stock], B., 1086.

Buckley, T. A., toxic constituents of derris root, B., 1117.

Buckley, W. E., Bradley, G. W. J., Greenfield, G. I., and Ruddy, R. H., crude benzol recovery, B., 434.

Buckman, S. J., creosoto distribution in treated wood, B., 696.

Buckner, G. D., and Harms, A.H., influence of calcium carbonate in the feed of laying hens on digestion, A., 1409.

Buckner, R. P. See Swain, A. F. Bucy, E. H., and Atlas Powder Co., [nitrocellulose-casein] coating, (P.), B., 1007. Crystal lacquer coating, (P.), B., 1109. Paper impervious to moisture, water, and grease, (P.), B., 1202.

Budanova, A. M., arginine content of proteins of the brain in vertebrates, A.,

1011.

Budd Manufacturing Co., E. G., rayon yarn or thread [for cord tyres], (P.), B., 1147. Buddeberg, W., and Otto & Sons, A. T., centrifugal machine, (P.), B., 352.

Buddin, W., canker and dry rot of swedes,

Buddingh, G.J. See Goodpasture, E.W. Buddington, A.F., and Callaghan, E., dioritic intrusive rocks and contact metamorphism in the Cascade Range in Oregon, A., 817. Budeanu, T. See Baltaceano, G.

Budkevitsch, A. A. Sec Tananaev, N. A. Budnikov, P. P., heat of reaction between kaolin burnt at different temperatures and Ca(OH)₂, A., 161. Replacement of molasses [in silica bricks] by sulphite cellulose lye, B., 408. Halfacid refractories of high quality, B., 408. Quartz sand in silica brick manufacture, B., 642.

and Bobrovnik, D. P., dehydration of kaolins. I. Tschasov-Jar clays, B.,

and Gulinova, L., heat of reaction of binding substances, A., 937.

and Guzev, V. K., influence of different modifications of gypsum on slag Portland cement, B., 836.

and Kretsch, E. I., evolution of sulphur dioxide and trioxide from calcium sulphate treated with chlorine in presence of a catalyst, A., 1211. Corrosion by chlorine of different modifications of silica at high temperatures, B., 989.

Budnikov, P. P., Nekritsch, M. I., and Kvitnitski, A. B., action of phosphoric

acid on clay, B., 932. and Paris, W. M., ferriferous quartzite, a mineraliser for silica bricks, B.,

and Schukareva, L. A., kinetics of

dehydration of gypsum, A., 166. and Smeljanski, V. S., tridymitisation of quartz in silica brick in presence of mineralisers, and by partly replacing quartzites by sand in the batches for silica brick-making, B., 408.

Budnitzki, D., and Kurtschatov, I., scattering of slow neutrons by iron and other

substances, A., 6.

Budó, A., rotation constants B, D, and Yfor the 3II terms of TiO, C2, CO, PH, AlH, and NH, A., 267.

Büchele, B. See Emminger, E. Büchi, J., stability of spiritus sinapis Ph. H. V., B., 1068.

Büchler, F., gas analytical apparatus, A.,

Büchner, E. H., quantitative relations in the lyotropic series, A., 680. and De Gruiter, C. S. B., lyotropic cation

series in hydrophilic colloids, A.,

Buehler, C. A., Carson, L., and Edds, R., identification of carboxylic acids as salts of benzylamine and a-phenylethylamine, A., 198.

Bühler, F. See Schittenhelm, A.

Bührmann, I., action of quinoline derivatives on pneumococci and streptococci in vitro, A., 248.

Bülbring, E., and Burn, J. H., estimation of cestrin and of male hormone in oily solution, A., 527.

Buell, A. E., Schulze, W. A., and Phillips Petroleum Co., desulphurisation of hydro-

carbons, (P.), B., 680.

Buell, M. V., adenine nucleotide content of human blood. II. Correlation with hæmoglobin, A., 356.

Büll, R., binding of water by inorganic materials. I., A., 423.

Buell Combustion Co., Ltd. See Jacobsen, O. B.

Bülow, M., fate of dehydroascorbic acid in the organism, A., 1304. See also Plaut, F.

Bünger, A. See under Verein. Schnürriemen-Werke Vorsteher & Bünger.

Bünger, H. [with Schultz, J., Augustin, H., and Finzenhagen, H.], digestibility and feeding value of vetch-mixture hay (Landsberg mixture), B., 474.

[with Schultz, J., Augustin, H., Keseling, J., Kirsch, W., Richter, K., Herbst, J., Stang, V., Wöhlbier, W., and Schramm,

W.], feeding trials with extracted rape meal, B., 427.
[with Schultz, J., Fissmer, E., and Finzenhagen, H.], digestibility and feeding value of marrow-stemmed kale, B., 474.

[with Werner, A., Schultz, J., Augustin, H., and Finzenhagen, H.], growth and feeding trials with marrowstemmed kale [for milch cows], B., 474.

Bueren, H. See Koenigs, E.

Bürg, G., nature of the invisible gold contained in pyrites, A., 1357. Secondary transformations and enrichment of gold in its primary deposits, A., 1357. Secondary removals and enrichments of gold in gold placers, A., 1483.

Buerger, C. B., and Gulf Refining Co., vapour-phase cracking, (P.), B., 534. Cracking of petroleum hydrocarbons, (P.), B., 682.

Bürger, M., and Brandt, W., glucagon, the hyperglycemia-producing substance of

the pancreas, A., 1302.

Buerger, M. J., device for drilling oriented holes in spheres required in construction of crystal structure models, A., 183. X-Ray powder camera, A., Probable non-existence arsenoferrite, A., 701. Crystallographic data, unit cell, and spacegroup for berthierite (FeSb₂S₄), A., Ĭ357.

and Butler, R. D., technique for construction of models illustrating arrangement and packing of atoms in crystals, A., 782.

Bürki, F. See Rupe, H.

Bürstenbinder, R., [marine] animal drying oils, B., 1215.

Büssem, W. [with Bluth, M., and Grochtmann, G.], röntgenographic measurements of expansion of crystalline masses, A., 1059.

and Weyl, W., constitution of glasses, B., 642.

See also Krüger, Deodata.

Büssemaker, J., significance of complex formation and solubility changes for the action of medicines, A., 1021.

Bütschli, L. See Borsche, W. Büttinghaus, A. Seo Tofaute, W.

Büttner, G., control of the natural and synthetic honey trade, B., 346.

Büttner, H. E., action of injectable liver extracts, A., 757.

Buettner, P. M. F., dryer cylinder, (P.), B., 576.

Büttner-Werke Akt.-Ges., heated-drum apparatus for desiccating liquids and semi-liquids, (P.), B., 130.

& Machine Co. Sec Buffalo Foundry Kermer, M.J.

Buffle, J., surface waters and deep waters in the canton of Geneva, A., 1356.

Bugaeva, M. M. See Kovalski, V. V. Bugaeva, Z. M. See Gudtzov, N. T.

Bugbird Co., Inc., H. C. See Wilson,

Bugge, C., lead-bismuth ores in Bleka, Svartdal, Norway, A., 308.

Buggs, C. W., and Green, R. G., electro-phoretic phenomena of bacteria. II. Electrophoretic velocities of virulent and non-virulent C. diphtheriæ. III. Electrophoretic velocity in relation to growth, senescence, and death, A.,

Buhmann, A., comparison of plasmolytic and cryoscopic methods for determining osmotic values in plants, A., 393. Respiration and glycolysis in normal and pathological skin with special reference to psoriasis, A., 1542.

Buhr, H. See Guttenberg, H. von.

Buiko, G. Sec Fabritziev, B. Buikova, S. V. See Babitscheva, V. N. Buinitzkaja, V. See Potolovski, L.

M. K. See Buitschkov, Tananaev.

Buizov, B. V., and Kusov, A. B., thermoprene from sodium-butadiene rubber, B., 655.

Bujalov, N. I., and Valiaschko, M. G., salt cupolas of the Ural-Emba region, and the possibilities of their industrial exploitation, A., 1483.

Bukhsh, M. W., Desai, R. D., Hunter, R. F., and Hussain, M., cyclohexane series. II. Formation of isomeric arylaminocyanomethylcyclohexanes in condensation of the cyanohydrins of the methylcyclohexanones with arylamines, Л., 1248.

Bukreeva-Prozorovskaja, L. M., and Tzerkovnikova, I. M., coefficient of distribution of acetaldehyde between butadiene and water during the washing

of crude butadiene, B., 10.

Bulach, A. A., direct electrolytic production of copper sheets, B., 201. Removal of sulphur from tin and its alloys, B., 325.

Bulach, S. A. See Stepanov, N. L.

Bulajewski, M., action of Nuphar luteum on the heart, A., 124, 652.

Bulatov, F. See Rakitin, J. V.

Bulford, M. N., and Knight Corp., B. B., and R., sizing solution for use in dressing or stiffening warps in sheets [in the] cold, (P.), B., 1090.

Bulger, H. A., amino-nitrogen of nephritic

transudates, A., 1541.

Bulifant, T. A. See Barrett Co.

Bulkeley, C. A., and Hockley, C. F., purification of fluids, (P.), B., 130.

Bull, A. W., percolation of einchona and belladonna root; rate of alkaloid extraction and effect of degree of comminution, B., 75.

Bull, H. B., and Frampton, V. L., physicochemical studies on lecithin, A., 749.

and Moyer, L. S., electrokinetics. XVI. Streaming potentials in small capillaries, A., 284. Average pore size of diaphragms, A., 698.

See also Moyer, L. S., Neurath, H., and

Theis, R. M. Bullard, P. See McDowell, L. S.

Bullard, R. H., and Dickey, J. B., phenyl-

arsinic acid, A., 491. Buller, E. L. See Jones, D. J. Bullin, L., ceramic firing, B., 370.

Bullock, H. A., apparatus for producing solid carbon dioxide [from combustion gases], (P.), B., 988.

Bullock, H. L., colloid mill in the paper

industry, B., 981.

Bullock, L. T., Gregersen, M. I., and Kinney, R., uso of hypertonic sucrose solutions intravenously to reduce cerebrospinal fluid pressure without a secondary rise, A., 228.

Bullowa, J. G. M., Rothstein, I. 4., Ratish, H. D., and Harde, E., ascorbie acid excretion in pneumonia and other pathological conditions, A., 1541.

Bulotschnikov, M. V. See Kaschtanov, L. I.

Bumann, H., light excitation in helium by collisions of positive potassium ions of 2500-8000 volts, A., 1171.

Bumm, H. See Grube, G. Bump, G. See Clark, L. B.

Bunbury, H. M. See Imperial Chem. Industries.

Bunce, E. H., Ashman, A. O., and New Jersey Zinc Co., metallurgical furnace [for continuous distillation of zinc ores], (P.), B., 503. Lentz, C. L., Mahler, G. T., and New

Jersey Zinc Co., zine oxide, (P.), B., 593. and New Jersey Zinc Co., coking of agglomerates, (P.), B., 678. Zinc oxide, (P.), B., 932. Stutz, G. F. A., and New Jersey Zinc Co.,

[zinc oxide] pigment, (P.), B., 381.

Bunce, E. H. See also Improved Metallurgy,

Bundel, A. A. See Agronomov, E. A. Bundesmann, testing of waterproof impregnated textiles, B., 189. Apparatus for testing usefulness of waterproof impregnated textiles, B., 1089.

Bungardt, W. See Bollenrath, F. Bunge, W. See Müller, Eugen.

Bunin, K. P., speeding up cementation of iron by means of metals, B., 742.

Bunin, M., laws of motion of thixotropic plastic liquids, A., 287.

Bunker, H. J., chemistry and physiology of the sulphur bacteria, A., 760. Bunker, J. W. M. See Wyman, E. T.

Bunte, K., dry purification [of gas], B., 225.

Brückner, H., and Lenze, A., dry desulphurisation of gas, B., 1027.

Bunting, B., and Marsh, T. D., effect of sodium chlorate used as a weed-killer among oil palms, B., 341.

Bunting, E. N. See Ewell, R. H., and Geller, R. F.

Bunting, H., Meek, W. J., and Maaske, C. A., chemical transmission of vagal effects to the small intestine, A., 1415.

Bunting, R. W., diet and dental caries, A., 1407.

Bunyea, H., treatment of cyanide poisoning of sheep and cattle, A., 377. See also Clawson, A.B.

Bunzell, H. H., rope infection [in bread], (P.), B., 1126.

Bunzl, M. See Eirich, F.

Buogo, G., determination of vifamin-C in foodstuffs (milk, lemons, and fruit), B., 391.

Burawoy, A., o-quinonephenylhydrazones, A., 328.

and Gibson, C. S., organic compounds of VI. Heterocyclic compounds, A., 618.

and Markovitsch-Burawoy, I., parachor, surface tension, and density of substituted phenols and phenolic ethers, A., 411.

Burawoy, I. See under Markovitsch-Burawoy, I.

Burbidge, P. W., and Moorcraft, T. G., spectrum emitted by a potassium bromide crystal under X-rays, A., 404.

Burbury Brick Co., Ltd., and Smith, T., bricks, (P.), B., 836.

Burch, O. G., determining chemical durability of soda-lime glasses, B., 642.

Burcham, W. E. See Lewis, W. B. Burchfield, P. E. See Booth, H. S.

Burchill, J. See Imperial Chem, Industries. Burchkies, K., organic compounds of germanium, A., 1004.

Burckhardt, H. See Landis, J. Burckhardt, W. See Schaaf, F.

Burden, W. M., Jackson, C. G., Pring, J. N., and Rotter, G., explosive, (P.), B., 126.

Sec also Rotter, G.

Burdette, R. C., biology and control of the pepper maggot, B., 293.

Burdick, C. H., ammonia and high bacterial counts [in water], B., 398. Burdick, C. L., recording hygrometers, (P.),

B., 480.

See also Du Pont de Nemours & Co., E. I.Burdick, H. O. See Whitney, R.

Burdon, K. L., and Lafferty, C., determination of antitrypsin, A., 1557.

Bureau, J., system lithium nitrite-water: the hydrate LiNO₂, 1.511₂O, A., 160. Crystalline varieties of hydrated nitrites of barium and strontium: the hydrate $\rm Sr(NO_2)_2, 4H_2O,~A.,~428.$ See also Sanfourche, A.

Burellier, J., catalytic composition for improving combustion of solid fuels, (P.), B., 259.

Bureš, E., and Babor, K., jun., Aesculus saponins and their sugar-free derivatives, A., 478.

and Fučik, S., constitution of papaver-

isterol, A., 1386.

Buresch, H., chronic carbon monoxide poisoning, A., 517, 1023.

and Luniatschek, V., determination of small amounts of carbon monoxide in blood, A., 1530. Burford, M. G. See Caley, E. R.

Burford, R. O. See Koehler, W. A. Burford, T. H. See Allen, E. Burford, W. A. See London Aluminium Co. Burg, A. B. See Schlesinger, H. I.

Burg, E. von. See Irmann, R., and

Zeerleder, A. von.
Burg, V. E., and Telefunken Ges. für

Drathl. Telegraphie m.b.H., photoconductive device and its manufacture, (P.), B., 798.

Burgener, G. See Head, R. E.

Burger, A., and Mosettig, E., preparation of 9:10-dihydrophenanthrene and its derivatives, A., 334. Phenanthrene series. XII. Amino-alcohols derived from 1:2:3:4-tetrahydrophenanthrene. XIII. 9:10-Dihydrophenanthrene and amino alcohols derived from it, A., 1309, 1504.

See also Mosettig, E.

Burger, A. M., amber, B., 571. Little known essential oils: sage oil in perfumery and cosmetics, B., 1128.

Burger, D. See "Kodigen" Akt.-Ges. für Komprimierte Gase in Vaduz.

Burger, F, J, and Söllner, K, action of ultrasonic waves on suspensions, A., 1460.

Burger, P., treatment of ready-dressed and tanned pelts, (P.), B., 163. Carbon black, (P.), B., 179.
Burgers, W. G., transition mechanism of

cubic body-centred into hexagonal close-packed zirconium; relation with modifications of calcium, A., 552.

[with Jacobs, F. M.], rolling and tensile texture of zirconium, B., \$41.

and Snoek, J. L., lattice distortion and coercive force in single crystals of nickel-iron-aluminium, A., 145.

See also De Boer, J. H.

Burgess, A. H., deterioration of hops during storage, B., 118. Hop research [manuring], B., 247.

and Goodwin, W., application of nitrogen and potash to hops during growth, B., 1116.

Burgess, B. C., pyrophyllite, a new development-the Gerhardt deposit, B., 1094.

Burgess, C. J., [adsorbent] composition [for use with foods], (P.), B., 170.

Burgess, C. O., and Electro Metallurg. Co., cast-iron alloy articles, (P.), B., 375.

Burgess, J. J., and Rock Island Register Co., mechanically corroding relief intaglio variegated surfaces on metal [steel], (P.), B., 153.

Burgess, L., beryllium and light alloys thereof, (P.), B., 332.

and Alexander, W. P., tin tetrachloride, (P.), B., 642,

Burgess Laboratories, Inc., C. F. See Kliefoth, M. II., and Svendsen, S. S.

Burgess, Lcdward & Co., Ltd., Pennington, R. W., and Clarke, C., colour effects on terry fabries, (P.), B., 99.

Burget, G. E. See Moore, P. II. Burgevin, II., effect of fertilisers on properties of silt soils, B., 1011.

See also Demolon, A., Foex, E., and Jolibois, P.

Burgin, J. Sco Bataafsche Petroleum Maats.

Burgmer, I., carbon paper, (P.), B., 736. Burgoa, P. A., glycerol content of Argentine wines, B., 1014.

Burgoyne, E. C. See Meyer, E. G. E. See Newitt, D. M.

Burgoyne, J. H. Burgoyne, W. J. Sec Gen. Chem. Co. Burgwald, L. J., increasing viscosity of cream, B., 426.

Burhop, E. H. S. See Massey, H. S. W. Burk, D., and Horner, C. K., origin and significance of ammonia formed by Azolobacter, A., 640.

Burk, R. E. See Standard Oil Co. Burkard, J., and Wullhorst, B., microdetermination of arsenie in must and wine, B., 119.

Burkard, O., Raman effect. XLIX. Mixture of phosphorus trichloride and tribromide, A., 136.

Burke, D. J., and Commercial Solvents Corp., bronzing lacquer, (P.), B., 1218.

Burke, F. D., inhibitor and method of preventing chemical attack of metals, (P.), B., 1101. Burke, G. T. See Stone, W. J.

Burke, J. P. See Du Pont de Nemours & Co., E. I.

Burke, S. P., Enterline, H. M., and Combustion Utilities Corp., synthetic [phenol-aldehyde] resins, (P.), B., 896. synthetic See also Doherty Research Co.

Burke, I'., Bradley, C. F., and Sullivan, N. P., auto-antibody production for bone-marrow, A., 1137.

Burke, W. E., Allen, W. H., Gale, W. A., Ritchie, C. F., Peet, R. B., and Amer. Potash & Chem. Corp., crystallisation apparatus, (P.), B., 130

Burkey, L. A., Sanders, G. P., and Matheson, K. J., bacteriology of Swiss cheese. IV. Effect of temperature on bacterial activity and drainage in the press, B., 665.

Burkhard, M. J., and Socony-Vacuum Oil Co., distillation of hydrocarbons, (P.), B., 359.

Burkhardt, A., and Sachs, G., special zine for manufacture of sheet for battery elements, B., 201. Diffusion of copper into [aluminium] coating on hardenable aluminium alloys ["alclad"], B., 279.

Burkhardt, G., form of the Compton line, A., 917.

Burkhardt, G. N., Evans, A. G., and Warhurst, E., hydrolysis of aryl sulphuric acids. II. Kinetic consider-

ations, A., 296.
Ford, W. G. K., and Singleton, E., hydrolysis of aryl sulphuric acids. J., A.,

Burkhart, B. A., hemicellulose constituents of lucerne roots, A., 1571.

See also Dickson, J. G. Burkser, E. S., radioactive waters at Starobelsk, A., 447.

and Kutschment, M. L., drop reaction for casium, and its adaptation to drop colorimetry, A., 578.

Burlage, H. M. See Brady, C. E. Burlakov, V. S., diaphragms for dialysing alkaline solutions, B., 58.

Burlakova, H. See Rubiustein, D. L. Burlew, W. L. See Dow Chem. Co. Burlison, W. L., soya bean, B., 903.

Burmistrov, F. L., adsorption photography,

Burn, J. H. See Bülbring, E. Burnett, R. E. See Reid, E. E., and Ruhoff, J. R.

Burney, E. D'A. See Parkes, G. D. Burnham, C. R. See Garber, R. J. Burnham, R. W. See Pasternack, R. Burnham, W. R., and Madgin, W. M.,

binary systems of organic compounds; thermal analyses and specific refractivities, A., 931. Equilibrium constants in terms of activities (cryoscopie). V. p-Toluidine o-chlorophenoxide and pchlorophenoxide in benzene and in pdichlorobenzene, A., 1339.

Burns, C. M., and Henderson, N., growth and water content of the bones of newly born pups and kittens, A., 1137. Mineral constituents of bone, II. Effect of age on mineral constituents of bones from kittens and pups, A., 1137.

F. See Imperial Burns, Industries.

Burns, H. S. See Powell, S. T.

Burns, J. E., and Remington Arms Co., priming mixtures, (P.), B., 173.

Burns, R. E. See Clayton, B.

Burns, R. M., and Haring, H. E., determination of corrosion behaviour of painted iron and inhibitive action of paints, B.,

Burns, W. L. See Parrish, P. Burnstein, M. See Binet, L. Burón, F. A. See Kauffmann, F. Buron, P. See Depardon, L. Buron, (Mme.) P. See Depardon, L.

Burovaja, T. See Maslov, V. Burovaja, Z. E. See Nikolaev, V. I.

Burr, A., milk record of several herds during one year, B., 1065.

Schlag, II., and Kollstede, E., refraction of calcium chloride serum and f.-p. depression of milks from a number of herds during one year, B., 616.

Burr, F. K. See Hoover, C. R. Burr, G. O., earbonic anhydrase and photo-

synthesis, A., 648.

Burriel, F., [use of] benzidine acetate in determination of bromides by silver, A.,

Burrin, P. L., Worton, A. G., and Bibbins, F. E., compound solution of eresol; variation of phenol coefficient when different oils are used for saponaceous base, B., 350. Evaluation of a deterioration factor in liquid paraffin, B., 474.

Burris, S. J., jun., Anderson, C. O., Illidge, R. E., Howes, W., and Harbaugh, M. D., milling practice in the Tri-Stato zinelead mining district (Oklahoma-Kansas and Missouri), B., 994.

Burroughs, S. G. See Lofton, W. M., jun. Burrows, G. H. See Davis, G. L.

Burrows, G. J., and Sanford, E. P., compounds of copper salts with tertiary arsines, A., 1395.

Burrows, H., pathological conditions induced by cestrogenic compounds in the coagulating gland and prostate of the mouse, A., 901. Protective action of progesterone on the genital organs of male mice, A., 1157.

Burrows, R. B. See Barber, H. II.

Burrows, W., and Cordon, T. C., influence of the decomposition of organic matter on oxidation-reduction potentials of soils, B., 1010.

and Jordan, E. O., oxidation-reduction potentials in Salmonella cultures. 1. Development of potential levels characteristic of species, A., 1423.

See also Dack, G. M. Burruss, D. N., jun., Ruth, J. P., jun., and Chem. & Pigment Co., "casein" [from soya-bean meal], (P.), B., 762.

Burschkies, K., organic compounds of germanium, A., 871.

Burstall, F. H., optical activity dependent on co-ordinated bivalent ruthenium, A., 485.

See also Morgan, (Sir) G. T.

Burstein, R., and Kashtanov, P., kinetics of para-ortho-hydrogen conversion on charcoal, A., 806.

Burström, D. See Euler, H. von. Bursuk, A. J. See Zanko, A. M.

Burt, J. B., mercurated derivatives of thymol and carvaerol, A., 619. Phytochemistry of Monarda pectinata, Nutt. I. [Dried] herb. II. Volatile oil, A., 1307.

Burt Co., Ltd., F. N. See Darrin, M.

Burtner, R. R. See Papesch, V. Burtness, H. I. See Gray, P. A.

Burton, D., chrome tanning. XIX. Effect of vegetable tannins on acidity of chrome[-tanned] leather; perpetual acidity, B., 1169.

and Robertshaw, G. F., determination of oil content of sulphonated oils, B.,

Burton, E. F., and Oliver, W. F., crystal structure of ice at low temperatures, A., 412.

Burton, H. B., and Wilkins, C. L., nutritive

value of the pinto bean, B., 42. Burton, H. H., Hatfield, W. H., and Service, T. M., forgings for handling of fluids at high temperatures and pressures, B., 743.

Burton, J. O., and Acree, S. F., concentration and dissociation constant of each acid group in a mixture from the p_H titration curve, A., 1203.

Hamer, W. J., and Acree, S. F., dissociation constants of malonic acid in its sodium salt solutions at 25° from electrometric titration measurements, A., 1203.

Burton, M., photolysis of acetic acid, A., 688. Mechanism of decomposition. I. Vapour-phase photolysis of acetic acid. II. Photolysis of formic acid, A., 1349. Burton, R. C. See Eastman Kodak Co.

Burton, S. M., acid and metal reaction, (P.), B., 543.

Buruiana, L., determination of urine in milk, A., 1139.

Burwell, A. W., and Alox Chem. Corp., de-emulsification of petroleum oil emulsions, (P.), B., 438. [Lubricating] grease, (P.), B., 800.

Burwell, R. L., jun., and Taylor, H. S., activated adsorption of hydrogen on chromic oxide gel, A., 791. Activated adsorption of hydrogen and earbon monoxide on zine oxide, A., 1334.

Bury, C. R., auxochromes and resonance, A., 201.

and Grindley, J., viscosity of butyricacidwater mixtures, A., 1060.

and Owens, R. D. J., system dodecoic acid-sodium hydroxide-water, A., 798. Bury Rubber Co., Ltd., and Horridge, R., rubber articles, (P.), B., 1009.

Busch, K. G. A., Clark, J. W., Genung, L. B., Schroeder, E. F., and Evans, W. L., mechanism of carbohydrate oxidation. XVIII. Oxidation of sugars with silver oxide in the presence of potassium hydroxide, A., 1491.

Busch, L., modern [photographic] emulsions

and the use of filters, B., 1020.

Busch, M., and Küspert, K., phenacylhydrazine, A., 615.

and Lang, Karl, influence of nuclear substitution on [formation and oxidation of] as-arylbenzylhydrazines, A., 464.

and Weber, W., formation of carbon chains during catalytic hydrogenation of alkyl halides, A., 1099.

Buschke, W., action of melanophoric hormone on darkness-adaptation of the human eye, A., 526.

See also Goldmann, H.

Buschmakin, I. N., Goldman, M. M., and Kubtschinskaja, K. I., physical-chemical properties of chlorohydrin and dichloride of Δ^{β} -butene, A., 290.

Buse, R. See Kilp, W.

Busenburg, E. B., and Goodrich Co., B. F., earth-like material [from scrap rubberised fibrous material], (P.), B., 465.

Buser, P., electrical conductivity measurements on welded pure aluminium, B., 1160.

Bush, E. R., and Chadeloid Chem. Co., stain and related composition, (P.), B., Wood stain, (P.), B., 560. 560.

Bush, II. J., horizontal revolving kiln, B.,

Bush, $W.\ A.$, Chile seed, A., 1435. Bushnell, $T.\ M.$, tests for phosphorus and potassium in relation to soil-survey work, B., 659.

Bushnell, V. C. See Gilbert, E. C.

Busgnet, $H_{\cdot \cdot}$, and Visehniac, $C_{\cdot \cdot}$, identity of the sympathomimetic action of broom and adrenaline: effects on the yohimbinised rabbit, A., 634.

Busquets, C., determination of arsenic in analytical reagents, A., 1081.

Buss, W. See Krzywanek, F. W.

Busse, O., metabolism of the human placenta, A., 1420.

Bussemaker, B. B. See Ruggli, P. Buswell, A. M., treatment of "beer slop"

and similar wastes, B., 222. and Boruff, C. S., production of methane

[by bacterial decomposition], (P.), B., 126.

and Larson, T. E., optical difficulties with the cylindrical cataphoresis cell, A., 1223.

and LeBosquet, M., complete treatment of distillery wastes, B., 910.

Busztin, A. Sco Waelsch, H. Butaeva, F. See Fabrikant, V. A. Butenandt, A., physiology of Δ^5 -androstenediol, A., 388. Biochemistry of the germinal gland hormones, A.,

1301. Cobler, $H_{\cdot,\cdot}$ and Schmidt, $J_{\cdot,\cdot}$ 17-ethylandrostenediol and 17-ethyltestosterone, A., 473.

Dannenbaum, H., Haniseh, G., and Kudszus, H., dehydroandrosterone, A., 77.

and Dannenberg, II., ∆1-androstene-3:17dione, A., 854.

and Fleischer, G., catalytic hydrogenation of progesterone, A., 77.

Butenandt, A., and Hanisch, G., testosterone; conversion of dehydroandrosterone into androstenediol and testosterone; preparation of testosterone from cholesterol, A., 77.

and ${\bf Kudszus}, H.$, and rost enedione; genesis of reproductory hormones, A., 77. and Riegel, B., 6-ketotostosterone and

related compounds, A., 854.

and Schmidt-Thomé, J., preparation of $\beta \gamma \cdot \Delta^5$ -unsaturated ketones of the sterol series; 17-ethyltestosterone, A., 727.

and Schramm, G., 7-hydroxy-1-keto-1:2:3:4-tetrahydrophenanthrene, A., 76. Œstrogenie activity of 1-keto-1:2:3:4-tetrahydrophenanthrene, A., Bromination of 45-cholestenone dibromide, A., 1512.

Tscherning, K., and Hanisch, G., new members of the androsterone group, A., 77.

and Westphal, U., hormones of the

corpus luteum, A., 527. and Wolff, A., bromination of cholestan-

one and coprostanone; ⊿1:2-cholesten-3-one, A., 75. Butenko, G.A. See Zanko, A. M.

Buti, P., motor fuel, (P.), B., 87.

Butkevitsch, V. S., formation of oxalic and citric acids by fungi, A., 1558.

and Gajevskaja, M. S., colorimetric determination of glucose and fructose by their osazones, A., 55. Yield of citric acid from sugar as a basis for estimating schemes of its formation from the latter, A., 247.

and Osnickaja, L. K., effect of acetate on consumption of succinic acid by moulds, A., 760. Rôle of formic acid in biochemical formation of oxalic acid, A., 896.

Butkov, K., molecular spectra of metal halides, A., 1177.

and Tsehassovenni, V., thermal dissociation and absorption spectra of vapours of KNO2, KNO3, NaNO3, and AgNO3, A., 1474.

Butkov, N. A., and Ostrovai, E. J., catalytic action of coke in high-temperature

cracking, B., 402.

Butkov, P. Sce Koldaev, B. M.

Butler, B. S., high-temperature mineral associations at moderate to shallow depth, A., 700.

Butler, C. G., and Innes, J. M., comparison of rates of metabolic activity in the solitary and migratory phases of Locusta migratoria, A., 508.

Butler, E., Knickerbocker, A. K., and Hocking, R. O., [iron] ore conditioning process, (P.), B., 238.

Butler, J. A. V., and Drever, G., mechanism of electrolytic processes. I. Anodic oxidation of some metals of the platinum group, A., 436. and Leslie, W. M., mechanism of electro-

lytic processes. II. Electrolytic oxidation of sodium sulphite, A., 436.

and Reid, IV. S., solubility of non-electrolytes. III. Entropy of hydration, A., 1205.

See also Hornel, J. C., and Leslie, W. M. Butler, J. M., auto-oxidation and antioxidants, B., 732.

Butler, M. R., seasonal variations in Chondrus crispus, A., 1163.

Butler, R. D., mylonitic sphalerite from Friedensville, Pennsylvania, A., 448. See also Buerger, M.J.

Butler, R. S., and Nordberg Manufg. Co., filter, (P.), B., 962. Butler, W. H. See Turkington, V. H.

Butler Manufacturing Co. See Norquist, V. C.

Butlin, K. R., biochemical activities of acetic acid bacteria, A., 760. Aërobic breakdown of glucose by Bact. suboxydans, A., 1560.

Butom, M.L. See Vinokurov, S. Butschakov, G.I. See Lebedev, S.V.

Butschholtz, H., principles of oxy-acetylene welding of austenitic manganese hard steels, B., 745.

Butschinski, A., impulse vacuum meter, A., 815.

Butschkivski, M. V. Sco Zosimovitsch,

Butterfield, C. T., sewago purification. I. and II., B., 397, 526.

Butters, C., amalgamation [of gold ores],

(P.), B., 505. Butterworth, A. B., preventing corrosion

of metal walls of tanks, (P.), B., 602. Butterworth, A. S. See Ihrig, H. K.

Butterworth, B., florescence. VII. Relation of soluble salt content to florescence, B., 694.

Butterworth, J. M. See Butterworth, S. D. Butterworth, S. D., Butterworth, J. M., and Gable, C. P., treatment of wood, (P.),

Buttgenbach, H_{\cdot} , measurement of the angle between the optical axes and determination of the optical sign (of crystals) by means of the refractometer, A., 582.

Buttle, G. A. H., Gray, W. H., and Stephenson, D., protection of mice against streptococcal and other infections by p-aminobenzenesulphonamide and related substances, A., 1142.

Button, E. W. See White, Alfred H. Butts, A., and Johnson, W. A., overvoltage; effect of fusion of the cathode and effect of temperature on gas polarisation,

A., 1343.

Butts, C. H., and Newton Steel Co., baso metal [sheet steel] for vitreous enamel, (P.), B., 602. Butts, J. S., Dunn, M. S., and Hallman,

L. F., amino-acid metabolism. I. Fate of glycine, dl- and d-alanine in the normal animal, A., 233. See also Deuel, H. J., jun.

Butturini, L., use of purpurin as indicator of

action of vitamin-D, A., 256. and Bianchi, V., adsorption of bloodcalcium, A., 1009.

and Pensotti, D., hypervitaminosis-B. VI. Cholesterolæmia. VII. Glycolytic activity of the blood, A., 1303.

and Vailati, R., hypervitaminosis-B. V. Complement action of the blood, A., 1303.

Butzler, E. W., proper feed-water and boiler-water conditioning for high-press-

ure boilers, B., 527.

Buwalda, J. P., apparatus for determination of the apparent volume and of the volume of voids, B., 769.

Buxbaum, E. C. See Du Pont de Nemours

& Co., E. I. Buydens, R., determination of nature and

amount of organic matter in drinking water, B., 1134. Buylla, B. A. See Del Rosario, M.

Buzágh, A. von, relations between the adhesion of particles of microscopic size and the activity coefficients of the electrolytes, A., 1064.

Buzzard, R. W., anodic treatment of alaminium, (P.), B., 282.

Buzzo, A., Carratalá, R., and Martinez, C., chronic poisoning by aniline; acute acute poisoning by p-phenylenediamine, A., 893.

Byčichin, and Laska, photo-electric colorimeter for determining carbon dioxide in air, B., 861.

Byé, J., molybdenum chlorohydrin and normal glycol molybdate, A., 1218. Byerly, T. C. Sco Nestler, R. B. Byers, H. G., Alexander, L. T., and Holmes,

R. S., composition and constitution of colloids of the great groups of soils, B., 291.

Williams, K. T., and Lakin, H. W., selenium in Hawaii and its probable source in the United States, B., 986.

See also Brown, I. C., Feustel, I. C., and Williams, K. T.

Byers, J. R. See Hartman, W. II'.

Byers Co., A. M. See Aston, J. Bygdén, A. See Sundius, N.

Byrkit, G. D. See Lincoln, B. H.
Byrne, C. O. See Forbes, A. L., jun.

Byrnes, C. P. See Inman, M. T., and James, J. H.

Bywater, W. G., Smith, Ernest Walter, Brown, G. E., and Gilman, H., orientation in the dibenzfuran series, A.,

See also Dox, A. W.

Bywaters, E. G. L., metabolism of cartilage, A., 1143, 1408.

C.

C.M.C. Corporation. See Moreno, G. G. Caamaño, J. L. G., graphical methods in kinetics, A., 1074. See also Crespi, M.

Cabannes, J., and Dufay, J., spectro-photo-metric comparison of zodiacal light and light of the night sky, A., 3.

and Garrigue, H., phenomenon of photo-luminescence in the upper atmosphere; excitation by sunlight of the 6300 A. line of oxygen, A., 1168.

and Rousset, A., depolarisation factor of Raman lines in nitrogen, oxygen, and carbon dioxide, A., 922.

Caberti, L., [dyeing with] indigosol dyes, B., 57. Finishing dyed and printed

flannelette, B., 58.
Cabot Carbon Co. See Damon, E. H.
Cabrera, B., and Torroja, J. M., apparatus for the measurement of magnetic susceptibility by Faraday's method, A., 955. Cabrera, R. See Oberhauser, F.

Caddick, A. J., copper precipitation, B., 23. Cadenhead, A. F. G. See Witherspoon, R. A.

Cadisch, J., geology of Swiss mineral and curative springs. A., 1483. Geological characteristics of Swiss mineral and curative springs, A., 1483.

Cado, Y. See Lévy-Bruhl, M.

Cady, G. H., distribution of sulphur in Illinois coals and its geological implieations, A., 186.

See also Benson, E. T., McCabe, L. C., and Shinkle, S. D.

Cady, H. P., determination of mol. wts. of gases or vapours, (P.), B., 964.

and Ingle, J. \hat{D} ., comparison of the glass and quinhydrone electrodes for the measurement of the activity of the hydrogen ion in sucrose solutions, A., 1219.

See also Belt, J. S., and Painter, K. D.

Caesar, G. V., and Moore, E. E., consistency changes in starch pastes: tapioca, corn, wheat, potato, and sweet potato, B., 166.

Caglioti, V., structure of ferric phosphate, A., 143. Solutions of aluminium fluoride, A., 1463.

and D'Agostino, O., aërogels. I. Structure of metallic oxides, A., 1460.

Cagnasso, A. See Cambi, \hat{L} . Cahane, M., effect of thyroid and thyroxine on chloride content of muscle, A., 645.

Cahen, A., micro-determination of potassium in substances of biological origin, A., 914.

Cahen, R. See Urbain, A. Cahill, G. F. See Green, D. F.

Cahill, W., phytochemical reduction with Thermobacterium mobile (Pseudomonas Lindneri), A., 1562.

See also Neuberg, C. Cahn, R. S., correlation of toxicity with optical activity of Derris derivatives, A., 1295.

and Boam, J. J., colour reaction for rotenone, A., 745.

Cahn, T., and Houget, J., conversion of glycogen into lactic acid by muscle extracts of normal and diabetic dogs, A., 630. Carbohydrates of muscle extracts of normal and diabetic dogs, A., 749. Utilisation of sugars in experimental diabetes, A., 1290.

Cahnmann, H. See Tiffeneau, M.

Cahour, J., hardness of electrolytic nickel deposits, B., 502.

Cailland, J., and Beanfils, J., silica gels and other dehydrating agents, A., 935.

Caillean, R., cultural characters of Tri-chomonas (Trichomastix) colubrorum, A., 385. Cholesterol as growth factor for flagellates, A., 516. Growth-promoting activity of certain sterols on Trichomonas columbæ, A., 1154.

Cailloux, L. L., cementitious composition, (P.), B., 1042.

Cain, E. A., chlorine residual test [in water], B., 862.

Cain, G. D., and Republic Steel Corp., refractory material, (P.), B., 835. Cain, J. R., and Eustis, F. A., ductile

electrolytic iron from sulphide ores, (P.), B., 331.

Cairneross, S. E., and Bogert, M. T., quinazolines. XLI. Synthesis of some new 4-quinazoline derivatives from pbromoaniline, formaldehyde, and hydrochloric acid. XLII. Synthesis of 3:4dihydroquinazolino derivatives from paminobenzoic acid, formaldehyde, and hydrochloric acid, A., 487, 736.

Cairns, R. W., and Firestone Tire & Rubber Co., antifreeze solution, (P.), B., 48. Cairns, T. L. See Sandin, R. B.

Caizzone, G., effect of lecithin and cholesterol in combination with insulin on carbohydrate metabolism, A., 1021.

Cajori, F. A., and Karr, W. G., absorption of glucose and galactose from dog's intestine, A., 1546.

Cake, W. E., and Gen. Rubber Co., preservation of [rubber] latex, (P.), B., 656.

Calalb, G., and Mesrobeanu, L., toxicity and specificity of the somatic antigen of dysentery bacillus, A., 1028. See also Mesrobeanu, L.

Calamari, J. A. See Rogers, H. D. Calantar, N., [production of] transformer oils from Russian heavy-oil distillates by the Edeleanu process, B., 51.

Calas, R. See Godehot, M.

Calbeck, J. H., electrolytic cell, (P.), B., 1002. and Amer. Zinc, Lead & Refining Co., zinc sulphide, (P.), B., 932.

Calcagni, G., and Lazzari, G., electrolytic oxidation and reduction of calcium

cyanamide, A., 687. Calco Chemical Co. See Battegay, M.,

Berry, G. A., and Salazar, L. G. Calcott, W. S. See Du Pont de Nemours & Co., E. I.

Calcutt, W. E. See Bailey, K. C. Calder, D. S. See Steacie, E. W. R.

Calderwood, H. N. See Benson, S. R. Caldin, E. F., and Wolfenden, J. H., kinetics of decomposition of the y bromobutyrate ion in neutral and in alkaline solution, A., 1210.

Caldwell, B. P. See Botti, E. C.

Caldwell, J., formation of local lesions by tobacco mosaic virus, A., 650. Occurrence of copper poisoning in a glasshouse crop, B., 342.

and Richardson, H. L., growth of clover in presence of ammonium sulphate, B., 515.

Caldwell, J. R., and Moyer, H. V., organic flocculating agents in quantitative precipitation of zinc sulphide, A., 178. Separation of zine from cobalt, A., 178. See also Foulk, C. W.

Caldwell, J. S. Sec Moon, H. H. Caldwell, M. L., Doebbeling, S. E., and Manian, S. II., influence of heavy water on activity and stability of pancreatic amylase, A., 519. Semi-micro-method for iodometric determination of maltose in studies of amylase action, A., 1024.

Caldwell, R. W. See Kleiber, M. Caldwell, W. L. See Brock, A. S. Caldwell, W. T., and Ziegler, W. M., synthesis of 6-amino-4-ethylpyrimidine, A., 344. Synthesis of 2-amino-4-ethylpyrimidine, A., 486. Synthesis of 6-hydroxy-4-methylpyrimidine-5-acctic acid and 4-methyl-5-aminomethyluracil, A., 1391.

Caley, E. R., and Bnrford, M. G., detection and separation of sparingly soluble compounds by concentrated hydriodic acid, A., 302. Separation of precipitated mercuric sulphide and sulphur in gravimetric determination of mercury, A., 303. Separation of stannic oxide from various oxides by ignition with ammonium iodide; application to analytical purification of ignited stannic oxide, A., 580.

Calhoun, J. A. See Wilkins, W. E. Calhoun, J. M. See Shipley, J. W. Calicel Products, Inc. See Dean, IV. T.

Calico Printers' Association, Ltd., Lantz, L. A., and Morrison, A. L., treatment of fabrics or textile fibres, (P.), B., 100. [Loading] of artificial silk, (P.), B., 451. Ornamentation of textile fabrics, (P.), B., 638.

Lantz, L. A., Morrison, A. L., and Miller, W. S., ornamentation of textile fabrics,

(P.), B., 1149.

California Fruit Growers Exchange, foodpreservative means [wrapping], (P.), B., 523. [Aluminium] metal-foil product [for wrapping foods, etc.], (P.), B., 843. Treatment of pectin, (P.), B., 1176. Treatment of pectin to alter inherent setting-time characteristics thereof, (P.), B., 1176. See also Cole, Gordon M., Higby, R. H.,

MacRill, J. R., and Platt, W. C.

California Packing Corporation. See Ash, C. S., Johnson, M.O., and Tucker, W. K. California Spray-Chemical Corporation, parasiticidal compositions, (P.), B., 468.

Calingaert, G., and Beatty, H. A., isomerisation of n-heptane, A., 309.

and Hladky, J. W., comparison and critical analysis of physical properties of homologues and isomerides; molecular volume of alkanes, A., 309.

and Soroos, H., methylnonanes, A., 701. Calise, B. G., treatment of rubber scrap, old rubber, etc., (P.), B., 290.

Calker, J. van, spectrographic investigation in analysis, A., 1082.

and Pittoni, A., electrolytic enrichment of arsenic in biological fluids, A., 1436. Calkin, J. B., X-ray spectrography of

alkali-celluloses, B., 311.

See also Volck, W.H.

Callahan, E. See Buddington, A. F. Callahan, M. J. See Du Pont de Nemours & Co., E. I.

Callam, $M_{\cdot,\cdot}$ fluorine as a specific for the

parathyroid, A., 1289. Callaway, R. W. See Woodford, L. W.

Callegari, L. See Mascherpa, P. Callender, A. Sco Imperial Chem. Industries.

Callender, L. H., oxide layer on a polished surface, A., 1325.

Callender's Cable & Construction Co., Ltd., Beckinsale, S., and Page, H. C., plastic composition [for electric cables], (P.), B., III.

and Cox, S. H., material for electrical insulating purposes, (P.), B., 1052.

and Hamilton, G. M., insulating electric cable joints and other enclosed electrical conductors, (P.), B., 940.

Callighan, O. W., coated paper, B., 981. Callis, C. C. See Aluminum Co. of America.
Callister, C. P., oligodynamic effect of metals, B., 1238.

Callow, E. H. See Banfield, F. H., and Woodman, H. E.

Callow, R. K., absorption spectra of estrone and related compounds in alkaline solution, A., 776. Action of selenium dioxide on sterols and bile acids. II. Formation of isomeric dihydroxycholadienic acids from apocholic acid and dihydroxycholenic acid; oxidation products of dihydroergosterol, A., 841.

Calloway, N. O., condensation reactions of furfural dehyde and its derivatives, A., 611.

Calloy, Ltd. See Kirsehom, G. N. Calò, A. See Marotta, D.

Calton, F. R., thermophilic contamination

within the sugar factory, B., 1226.
Calvert, H. T., disposal of industrial effluents, B., 766.

Calvert, J., hydrogen-ion phenomena in tobacco, A., 1305.

Calvert, W. C., and Wingfoot Corp., transparent films [of rubber hydrohalides], (P.), B., 113.

Calvery, II. O., analysis of type I pneumococeus specific precipitate, A., 224. Crystalline ovalbumin. II. Fractionation of peptic hydrolysis products, A., 227.

Block, W. D., and Schock, E. D., crystalline ovalbumin. IV. Rate of liberation of amino-nitrogen and cystine, tyrosine, and tryptophan; colorigenic values during peptic, acid, and alkaline hydrolysis of ovalbumin, A., Calvery, H. O., Herriott, R. M., and Northrop, J. H., determination of aminoacids in crystalline pepsin, A., 520.

and Schock, E. D., crystalline ovalbumin. III. Fractionation of peptic hydrolysis products by dialysis, A., 492.

Calvet, F., and Carnero, (Miss) M. C., nitration of 1:8-dihydroxynaphthalene, A., 840.

and Mejuto, M. N., condensation of chloral with salicylic acid, A., 844.

See also Carnero, (Miss) M. C., Mejuto, M. N., and Niño, E. L.

Calvin, D. B. See Ellis, M. M.

Calvin, M., platinum electrode as a catalyst for the activation of hydrogen, A., 1212.

Cockbain, E. B., and Polanyi, M., activation of hydrogen by phthalocyanine and copper phthalocyanine. I., A., 1213.

Eley, D. D., and Polanyi, M., activation of hydrogen by phthalocyanine and copper phthalocyanine. II., A., 1213. See also Glockler, G.

Cambden, M. R. See Coward, K. H.

Cambi, L., nitrosyl of A. Angeli, A., 1350. and Cagnasso, A., new types of complex paramagnetic salts of the iron series,

nd Coriselli, (Signa.) C., cobalt salts of glyoximes. I. and II. Diand glyoxime and sesquiglyoxime cobaltic salts, A., 825.

and Ferrari, A., complex nitrites of iron, cobalt, nickel, and copper: structure and magnetic susceptibility, A., 274.

Cambier, M. See Soe. de Recherches & d'Exploit. Pétrolifères.

Cambier, P., and Bardos, G., composition of arterial blood after ingestion of saline

solution, A., 876. Cambier, R. See Soc. de Recherches & d'Exploit. Pétrolifères.

Camel Lead, Color & Chemical Products Manufacturing Corporation, disinfectant

paints, B., 286. Cameron, A. E. (Minnesota). See Reyerson, L. H.

Cameron, A. E. (Rochester, N.Y.). See Russell, J.

Cameron, C. See Williams, C. H. B. Cameron, D. M. See Shaffer, W. M.

Cameron, E. J., culture media for nonacid products, A., 1424.

Esty, J. R., and Williams, C. C., cause of "black beets": an example of oligodynamic action as contributory cause of spoilage, B., 472.

Yesair, J., and Williams, C. C., thermophiles in sugar, B., 757.

Cameron, F. K., ferric sulphate in aqueous solutions of other sulphates, A., 797. See also Huffman, E. O., and Taylor,

Cameron, J. A. See Curtis, W. C. Cameron, S. H., and Appleman, D., total nitrogen in developing flowers and young fruits of Valencia oranges, A., 1432.

Cameron, W. M., and Tainter, M. L., bronchodilator action of sympathomimetic compounds after histamineinduced bronchial spasm, A., 1022. See also Pedden, J. R.

Camis, M., rôle of glucose in muscle biochemistry, A., 630.

Camp, E. See Pollock, J. E. Camp, W. J. R., and Higgins, J. A., adrenaline action, A., 1158. Rôle of potassium in adrenaline action, A., 1425.

Campanella, J. L. See Parks, W. G. Campbell, A. G. See Eagles, B. A.

Campbell, A. J., ovens or kilns, (P.), B.,

Campbell, A. N., and Katz, S., viscosity of liquid phosphorus, A., 21.

Campbell, A. W., Cromwell, N. H., and Hager, J. J., isolation of acenaphthylene and pyrene from products of pyrolysis of natural gas, B., 774.

and Reed, M. C., age-resisters in vulcanised rubber; hydroxy-substituted Nphenylmorpholines, B., 803.

Campbell, C. H., devulcanisation of rubber,

(P.), B., 1113.

Campbell, D. F., high-frequency furnaces in steel works, B., 741.

Campbell, D. J., stability of [hydrogen] peroxide bleach baths, B., 314.

Campbell, Donald J., and Campbell, Wyant & Cannon Foundry Co., hardening of iron castings, (P.), B., 1101.

Campbell, G. A., properties of pigment powders, B., 800.

Campbell, H. See Diehl, H. C. Campbell, H. C. See Rice, O. K.

Campbell, H. L. See Sherman, II. C.

Campbell, John, Rolleston, L. O.. and Internat. Paper Co., bleaching of cellulose

materials [wood pulp], (P.), B., 786. Campbell, (Sir) John, and Tait, W. H.,

electrodeposition of tin, (P.), B., 1103. Campbell, J. S. See Arbuthnot, F. S.

Campbell, L., downy mildew of peas caused by Peronospora pisi (De B.), Syd, B.,

Campbell, L. K., effect of high-protein diets on the kidney function in dogs, A., 1543.

Campbell, M. S., disposal and recovery of textile waste liquors; chemical precipitation of colour-shop wastes, B., 398.

Campbell, N. R., Noble, H. R., and Stoodley, L. G., time lag in photo-electric cells, B., 844.

Campbell, N. R., jun., use of 2:4-dinitrophenylhydrazine as a reagent for carbonyl compounds, A., 1005.

See also Bennett, C. T.

Campbell, P.A. See Holmes, A.D. Campbell, R.E., effects of chloral hydrate on maternal and feetal organisms, A., 375.

Campbell, R. W., and Rodebush, W. H., formation of hydrogen peroxide in the electrodeless discharge in water vapour. A., 687.

Campbell, Robert W., Wagner, F. W., and Jones & Laughlin Steel Corp., benzene from light oil, (P.), B., 85. Chemically pure benzene, (P.), B., 85.

Campbell, S. E., decolorisation of [hydrocarbon] oil, (P.), B., 86.

Campbell, W., structure of armour, ancient and modern, B., 104.

Campbell, W. B., and Russell, J. K., true density of cellulose, B., 13.

Campbell, W. G., inorganic infiltration theory of wood decay, B., 62, 276.

See also Bamford, K. F., and Cartwright, K. St. G.

Campbell, W. P. See Drake, N. L. Campbell-Renton, M.L. See Dreyer, G.Campbell, Wyant & Cannon Foundry Co.

See Campbell, Donald J. Campellone, P., reticulo-endothelial origin of fibrinogen: comparative study of fibrinogenetic action of some carioclasies, A., 355.

Campetti, A., band spectra of halogens in

point discharge, A., 915.

Campori, A. S., normal blood-sugar in domestic animals, A., 875.

Canadian International Paper Co. See Hochberger, E.

Canal, H. See Goris, A.

Canals, E., Mousseron, M., Souche, L., and Peyrot, P., Raman spectrum of some substituted cyclohexenes, A., 777. Raman spectra of some substituted epexycyclohexanes, A., 1050. Raman spectrum of some substituted epoxycyclopentanes, A., 1050.

Peyrot, P., and Noël, R., fluorescence of

some pure substances, A., 270. Canavaggia, (Mlle.) R. See Arnulf, A. Cancino, J. M., Peruvian guano, B., 898.

Canciulesco, M., and Hirsch, R., diagnostic value of pigmentation in paludism: concentration [of pigment] in blood and urine, A., 506.

Cindea, C., and Cristodulo, N., oxidation of

benzine, B., 356.

and Kühn, J., reduction of copper oxide and stannic oxide with Sarmasel natural gas, A., 1212. Decomposition of methane and petroleum hydrocarbons with steam, B., 532.

and Macovski, E., nitro-derivatives of fluorene. II. Colour reactions given by some derivatives of 2-nitrofluorene,

A., 1498.

Macovski, E., and Kühn, J., homoneurine series. I. Bromo-derivatives of isoquinolinehomoneurine. A, 1124.

and Marschall, A., destructive hydrogenation of Rumanian petrolcum residues

from Moreni, B., 1028. and Murgulescu, I. G., volumetric determination of lead and of molybdates with adsorption indicators, A., 443. Conductometrie titration of tungstate

with silver nitrate, A., 953.

and Sauciuc, L. I., rapid detection of sodium and potassium in presence of ammonium and magnesium, A., 951. Separation of sulpho-bases from sulpho-acids and detection of individual elements of second analytical group; detection and separation of elements of second group; Pb, Hg, Bi, Cd, and Cu; detection and separation of elements of third group, A.,

Candy, F. P., [bed] filters, (P.), B., 49. Canessa, J. C., gravimetric determination

of sodium, A., 1220.

Canfield, R. H., and Kaiser, H. F., lead alloy [for storage-battery anodes], (P.), B., 1049.

Cann, J. Y., and Mueller, G. B., potential of the Ag(s)|Ag₂CrO₄(s)|CrO₄" electrode,

Cannan, R. K. Sec Kekwick, R. A.

Cannavo, L., spontaneous ketonuria and ketonuria from administration of stearic acid in normal subjects and hepatic patients, A., 234. Contrary actions of epiphyseal extracts on bloodketones, A., 1426.

and Beninato, R., destruction of the anterior pituitary by X-rays. 1. Destruction of the anterior pituitary and magnesium, calcium, and phosphorus metabolism, A., 1019.

and Capizzi, I., spontaneous ketonuria from a ketogenic diet in hepatic patients, A., 1142.

Cannavo, L., and Fradda, G., magnessemia in hypothalamic-hypophysic diseases.

I. Blood-magnesium. II. Parallelism between hypermagnesamia and hyperprolanuria in hypophysopathy. III. Variations in magnesæmia and prolanuria on X-irradiation of the pituitary gland in hyperpituitarism, A.,

and La Monaca, S., glycæmia and ketosis in rabbits due to X-ray lesions of the anterior pituitary lobe, A., 1291.

Cannicci, G. See Brunelli, G. Cannon, C. Y. See Thomas, B. H.

Cannon, H. J., and Hixson, O. F., evaporated milk; effect of irradiation on vitamin-A content, B., 1123.

Cannon, M. R., and Fenske, M. R., solvent extraction of lubricating oils in a reflux

extraction unit, B., 1077.

Cannon, W. B., and Rosenblueth, A., comparative study of sympathin and adrenaline, A., 249. Comparison of effects of sympathin and adrenaline on the iris, A., 526.

See also Rosenblueth, A.

Cano, A. See Ribas, I. Canon, F. A., Amer. Cyanamid Co., and Heyden Chem. Corp., catalytic apparatus, (P.), B., 576.

Sec also Du Pont de Nemours & Co., E. I. Cantacuzène, L. See Slatineanu, A.

Cantarow, A., Brundage, J. T., and Housel, E. L., blood-sugar, inorganic phosphorus, and phosphatase activity following intravenous injection of calcium salts, A., 1401.

Gartman, E., and Ricchiuti, G., hepatic function. III. Effect of cholecyst-

ectomy, A., 621. See also Stewart, H. L.

Canterbury, H. H., oil and gas separator,

(P.), B., 9.

Cantieni, R., yellow coloration produced by ultra-violet light on mixtures of pyridine with sugars, monohydric alcohols, and acctone, A., 83. Photolysis of fructose in quartz light using long-wave ultraviolet light, A., 299. Connexion between decomposition velocity and concentration of fructose in long-wave ultra-violet light, A., 300. Acidity and yellow coloration of fructose at higher temperatures in quartz light, A., 300. Delay and "prolongation" of reaction during decomposition of fructose in ultra-violet light; light-induced [lightactivated] fructose, A., 594. Effect of sodium chloride and other metal halides on [decomposition of] fructose in ultraviolet light, A., 594. Photochemical peroxide formation. I. Oxidation of methyl alcohol by molecular oxygen in ultra-violet light. II. Oxidation ethyl, propyl, butyl, and amyl alcohol by molecular oxygen in ultra-violet light; photochemical formation of peralcohols. III. Oxidation of glycerol by molecular oxygen in ultra-violet light; photochemical production of perglycerol. IV. Oxidation of acctone by molecular oxygen in ultra-violet light; photochemical production of peracetone. Oxidation of fructose by molecular oxygen in ultra-violet light; photochemical formation of perfructose. VI. Oxidation of formic acid in ultra-violet light by molecular oxygen; photochemical formation of performic acid, A., 808, 963, 1091, 1348, 1490, 1492.

Cantoni, G. See Scoz, G. Cantuniari, I. P. See Hopff, H.

Capaldi, B. See Tria, E.

Capatos, L., and Perrakis, N., magnetic study of mixed crystals of bivalent copper and silver, A., 786. See also Karantassis, T., and Perrakis,

N.

Cape, A. T., Bowman, K. B., and Republic Steel Corp., stable dicalcium silicate refractory composition, (P.), B., 695.

Cape Explosive Works, Ltd. See Malan, J. Capillon, E. A., Carter, F. E., and Baker & Co., [precious-metal] alloys [resembling white gold], (P.), B., 796.

Capizzi, I. See Cannavo, L., and Fiandaca,

Capocasale, F. Sce Jacchia, P.
Capps, R. B., Ferris, E. B., jun., Taylor,
F. H. L., and Weiss, S., rôle of pressor substances in arterial hypertension, A.,

Caprio, A. F. See Walsh, J. F. Capron, P. C., ortho-para-hydrogen conversion under the action of a-particles, A., 171.

and Cloetens, R., decomposition of ozone by the action of α -particles, A., 38.

Capstaff, J. G. See Eastman Kodak Co. Capstan Glass Co. See Brown, B. D.

Carbery, M., Chatterjee, I., and Hye, M. A., determination of digestibility coefficients. I. Coefficients of individual nutrients in a mixed ration, A., 368.

Carbic, Ltd., and Them, H., [continuous] acetylene gas generating apparatus,

(P.), B., 735.

Carbide & Carbon Chemicals Corporation, 1-phenyl-3-methyl-5-pyrazolone related compounds (P.), B., 1144.

and Carruthers, T. F., esters of 2[\beta] butyloctanol, (P.), B., 442. Acetylbenzoyl peroxide, (P.), B., 445.*

and Cox, \hat{H} . L., liquid composition [for heat and pressure transference], (P.), B., 672. Corrosion inhibitor, (P.), B., 1046. Chloroethyl chloroethoxyethyl ether, (P.), B., 1141.

Cox, H. L., and Carruthers, T. F., alkylene] glycol ester derivatives; [plasticisers], (P.), B., 88. Esters of glycol ethers and compositions containing them, (P.), B., 263. Ether derivatives of morpholine alcohols, (P.), B., 1198.

Cox, H. L., and Clapsadle, L. J., liquid medium for heat and pressure transfer,

(P.)<u>,</u> B.<u>,</u> 399.

Cox, H. L., and Greer, P. S., preservation of organic substances, (P.), B.,

Dana, L. I., and Georgi, G. W., homogeneous composition [f.-p. depressant], (P.), B., 90.

and Doolittle, A. K., vinyl resin compositions and processes employing the same, (P.), B., 1007.

and Douglas, S. D., polymerisation of vinyl compounds, (P.), B., 110. and Duggan, F. W., light-stabilisation

of vinyl polymerides, (P.), B., 1007.

and Eversole, J. F., oxidation catalyst for earbon monoxide], (P.), B., 593. Dehydrogenation of methyl alcohol,

(P.), B., 823. and Fife, H. R., composite [laminated wood] article, (P.), B., 236.

and Greer, P. S., catalysts, (P.), B., 1151. and Groff, F., [vinyl resin] denture, (P.), B., 110.

Carbide & Carbon Chemicals Corporation, Groff, F., and Reed, M. C., stabilisation of vinyl resins and compositions produced thereby, (P.), B., 1007.

and Johnston, F., 1-phenyl-3-methyl-5pyrazolone and related compounds,

(P.), B., 1198*

and Law, G. H., diketen, (P.), B., 1195. and Perkins, G. A., bis-β-dichloroalkyl ethers, (P.), B., 138. Separation of diolefines from hydrocarbon mixtures, (P.), B., 438. Vinyl ester, (P.), B., ì192.

Perkins, G. A., and Purse, J. H., dialkylamino-alcohols, (P.), B., 1081.

and Ray, A. B., removal of oxygen from

gas mixtures, (P.), B., 1092. and Reed, M. C., [vinyl] plastic com-position, (P.), B., 31.

and Reid, E. W., composition of matter; [solvent for cellulose acetate], (P.), B., 1109.

and Reid, G. H., purification of aliphatic acids, (P.), B., 780.
and Robertson, H. F., [vinyl resin] films, etc., (P.), B., 802.

and Wickert, J. N., decylene compounds, (P.), B., 138. Oxygenated nonadecyl compounds, (P.), B., 264. Liquid coating compositions, (P.), B., 500. Undecyl compounds [wetting, etc., agents], (P.), B., 1142. Wickert, J. N., and Carter, C. A., oxy-

genated aliphatic compounds derived from a-ethylbutaldehyde, (P.), B.,

Wickert, J. N., and Freure, B. T., aliphatic organic compounds, (P.), B.,

and Williams, D. B., distribution of [irritating] gases or vapours, (P.), B., 622.

Young, C. O., and Douglas, S. D., fractionation of vinyl resins, (P.), B., 110. Polymerisation of vinyl compounds, (P.), B., 752. Stable vinyl resins, (P.), B., 895.

Carbo-Norit-Union Verwaltungs-Ges.m.b.H., solvent recovery, (P.), B., 11. Refining of motor fuels, (P.), B., 778.

Carbo-Oxygen Co. See Eichelman, F.J.Carbon Dioxide Co., Ltd., and Paul, C. E., cooling of liquid in storage vessels, (P.), B., 624.

Carbonated Lime Processes, Ltd. See Harrison, A. H.

Carbonic Development Corporation. See Hasche, R. L.

Carborundum Co., disintegrating apparatus, more especially for paper pulp, (P.), B., 234. Coating of abrasive grains, (P.), B., 740. Granule-coated webs, (P.), B., 740. Porous bodies, (P.), B., 791. Abrasive articles, (P.), B., 791. Casting of molten [refractory] materials, (P.), B., 836.* Plastic compositions [as cements], (P.), B., 934. Cast iron, (P.), B., 1044. Refractory articles, (P.), B., 1207. Porous bonded abrasive articles, (P.), B., 1207. Granule-coated webs for preventing offset in printing, (P.), B., 1218.

See also Benner, R. C., Easter, G. J., Geiger, C. F., Kirchner, H. P., McMullen, C., Martin, Harry C., Nelson, C. S., Porter, G. H., Prey, A. H., and Thomson, A. P.

Carborundum Co., Ltd., abrasive coated articles, (P.), B., 223.

Carburetted Gas, Inc. Sco Nagel, T. Cárcamo, V., alkaloid in Vallesia dichotoma, A., 1166.

Cardarelli, E. J., and Standard Alcohol Co.,

ketones, (P.), B., 89.
Cardile, G. See under Industria Articoli Caoutchoue.

Cardin, A., urease in mucous membrane of the intestine of the fætus, A., 637. Carel, R. See Lecoq, R.

Caress, A., plastics for use in electrical engineering, B., 1166.

Carey, H. H. See Woodall-Duckham

(1920), Ltd.
arey, W. F. See Imperial Chem. Carey,

Carey Manufacturing Co., P. See Fischer, A. C., and Greider, H. W., and Schaeffer, E. R.

Cargo Fleet Iron Co., Ltd., Gibbons Bros., Ltd., and Warwick, W. N., coko ovens and retorts, (P.), B., 967.

Cario, G., and Stille, U., origin of the afterglow in active nitrogen, A., 1309.

Carl, B. E., and Campbell, C. G., medicinal oil, (P.), B., 630.

Carl, H. See Petersen, M.

Carlberg, J. See Kauko, Y. Carlblom, A. J., genesis of linalool in coriander oil; composition and structure of components of oil from flowering Coriandrum sativum, B., 348.

Carle, J. F., bituminous paving material, (P.), B., 63.

Carleton, P. W. See Du Pont de Nemours & Co., E. I.

Carleton, R. A., treatment of liquids capable of polymerisation, (P.), B.,

and Nat. Electric Heating Co., bodying of liquids [oils], (P.), B., 379.

Carletti, O., reaction of borncol, A., 1006. Sensitive reaction for oxalic acid, A.,

Carli, B., detection and determination of lead tetraethyl in motor-fuel mixtures, B., 259.

Carlisle, P. J., safety in handling noxious materials, B., 300.

See also Du Pont de Nemours & Co., E. I. Carlsohn, H., bromine. I. Preparation of bromine dipyridine perchlorato and bromine dipyridine nitrate. II. Preparation, properties, and constitution of an aquo-pyridine compound of bromine monoxide, A., 174.

nd Rathmann, F., reineckates organic bases, A., 1493.

Carlson, C. J. See Kobe, K. A. Carlson, G. H. Sco Michael, A. Carlson, H. E. Sco Ockerblad, N. F. Carlson, W. W. See Pagel, H. A.

Carlstedt, R., apparatus for maintaining constant conditions such as pressure, temperature, or humidity, (P.), B.,

Carman, E. F. See Harkins, W. D. Carmichael, E. A. See Cumings, J. N. Carmichael, E. B., thiocyanate treatment of mange in guinea-pigs, A., 752.

Carminati, V. See Rondoni, P. Carnahan, F. L., pyrolysis of allyl-p-phene-

tidine, A., 200.

See also Rescorla, A. R. Carne, W. M., and Martin, D., breakdown in Tasmanian apples, B., 217. Apple investigations in Tasmania. VII. Safe limit of carbon dioxide concentration under ordinary cool-storage conditions, B., 217.

Carnero, (Miss) M. C., and Calvet, F., 1:3-dioxins. V. Preparation of $\alpha\beta$ naphtho-1:3-dioxin and comparison with 1:8-naphtho-1:3-dioxin, A., 1263. See also Calvet, F.

Carney, B. R. Sce Shell Development Co. Carney, S. C. Sco Shell Development Co. Carney, T. W. See Harner, H. R.

Carnot, C. See Soc. Franc. de la Viscose. Carnot, P., and Lavergne, H., modification in bactericidal power of blood by sodium citrate, A., 1284.

Caro, N., Frank, A. R., Wendlandt, R., and Fischer, T., nitric acid and liquid nitrogen tetroxide, (P.), B., 493.

Caroca, F., and Koref, O., substances stimulating the uterus in blood of pregnant and parturient women, A., 528.

Carolus, R. L., magnesium deficiency in

vegetable crops, B., 385. Caron, H., and Raquet, D., colorimetric determination of nitrates in water in presence of chlorides, B., 622.

Caronna, G. See Oddo, G. Carothers, W. H., polymerides and polyfunctionality, A., 295.

See also Du Pont de Nemours & Co., E. I., Natta, F. J. van, and Spanagel, E. W.

Carpéni, G., dissociation constants of reductone and of its product of exidation by iodine, A., 683. Dissociation constants of ascorbic acid and its iodino oxidation product, A., 1069. Carpenter, A. S. Seo Dunlop Rubber Co.,

and Internat. Latex Processes.

Carpenter, C. C. See Prestage, A. J. Carpenter, C. P. See Smyth, H. F. Carpenter, D. C., and Brockway, L. O.,

electron-diffraction study of paraldehyde, A., 1055.

and Lovelace, F. E., influence of neutral salts on optical rotation of gelatin. III. Effect of halides of lithium, sodium, rubidium, and cæsium. IV. Rotatory dispersion of gelatin in sodium iodide solutions, A., 288.

See also Kucera, J. J., and Pauling, L. Carpenter, E. L. See LaMer, V. K.

Carpenter, G. B. See Du Pont de Nemours & Co., E. I.

Carpenter, G. K. Sco Wilkins, W. E. Carpenter, L. V., Rogel, A. C., and Grabois, B., disposal of garbage in the sewerage

system, B., 1237. Carpenter, M. S., and Givaudan-Delawanna. Inc., aromatic alcohols, (P.), B., 974.

Carpenter, P. L., Fulton, McD., and Stuart, C. A., stimulation of bacterial growth rate by germanic methyl oxide, A., 115.

Carpenter, T. M., chemical hygrometer, A., 182.

Carpenter & Co., Inc., L. E. See Zimmerman, E, K,

Carpenter Steel Co. See Palmer, F. R. Carpzow, J. B. See Planktokoll Chem. Fabr.

Carr, C. J., Beck, F. F., and Krantz, J. C., sugar alcohols. V. Chemical constitution and sweet taste, A., 1229.

See also Dozois, K. P., and Krantz,

J. C., jun. Carr, J. D., and Reikie, M. K. T., Flin Flon zinc plant of the Hudson Bay Mining & Smelting Co., Ltd., B., 549. Carr, J. I. Sco Du Pont de Nemours & Co., Carr, P. H., effect of cathode rays on photographic paper, B., 220.

Carranza, F., colorimetric chemical analyses by means of photo-electric cells, A., 302. Carranza, M., periodic system of the elements and element 93, A., 657.

Carraro, E. See Bragagnolo, G. Carratalá, R. See Buzzo, A.

Carratalá, R. E., comparative titration of commercial digitalis preparations by the colorimetric and biological methods, B., 858.

Carré, P., interpretation of differences in properties of alkyl chlorosulphites and chloroformates from the electronic viewpoint, A., 453. Interpretation of reactions of organic chemistry from the electronic viewpoint, A., 568. Relative mobility of alkyl radicals in their chlorosulphites and chloroformates, A., 964. Differences in properties of alkyl chloroformates and chlorosulphites, A., 964.

and Jullien, P., pyruvyl chloride, A., 966. and Libermann, D., action of thionyl chloride on cyclohexanol, A., 721.

and Passedouet, H., influence of an element or of a negative group on relative mobilities of alkyl radicals in their chloroformates, A., 53.

and Peigné, L., relative mobilities of normal alkyl radicals in their chlorothioformates, A., 1091.

Carrelli, A., infra-red absorption of aqueous solution, A., 921.

and Battista, M., are spectrum of alkali metals with high vapour density, A., 127.

Carrero, J. G. See Kahane, E. Carrick, C. W. See Roberts, R. E. Carrié, C. See Mallinekrodt-Haupt, A. S.

von, and Schreus, H. T. Carrier, N. H., and Young, J. H., application of statistical methods to determination of folding-endurance of paper, B.,

Carrier, W. H., and Carrier Eng. Corp., shell and tube evaporator, (P.), B., 578.

Carrier Engineering Corporation. Carrier, W. H. Carrière, G. Sco Arkel, A. E. van.

Carrington, J. H., testing of [rubber] substitute, B., 32.

Carrisson, G. See Briner, E. Carroll, C. F., and Amer. Bitumuls Co., [bituminous] paving mixtures, (P.), B., 596.

Carroll, C. J. See Faber, L. De R. Carroll, R. H. See Cook, C. A.

Carroll, S. J. See Eastman Kedak Co. Carron, R. F., preparation of magnesium

hypochlorite (Magnocid), B., 986. Carrozzi, R., aero petrol of high anti-knock

value, B., 966. Carruthers, A., and Cooper, E. A., enzyme

formation and polysaccharide synthesis by bacteria. II., A., 899.

Carruthers, E. H., and United Furnace Eng. Co., combustion of liquid fuels, (P.), B., 534.

Carruthers, J. C. See Roberts, A. L. Carruthers, J. E., and Norrish, R. G. W., polymerisation of gaseous formaldehyde and acetaldchyde, A., 298. Photochemical oxidation of formaldehyde and acetaldehyde, A., 1077.

Carruthers, J. L., loading device for loadtest furnace [for refractory brick], B.,

409.

Carruthers, T. F. See Carbide & Carbon Chem. Corp.

Carson, F. T., measuring strength of paper, B., 735.

Carson, H. J., water-gas, (P.), B., 228. Carson, J. F. See Noller, C. R.

Carson, L. See Buehler, C. A.

Carson, S. C. See Mitchell, S. Carswell, T. S., Faust, H. W., and Monsanto Chem. Co., substituted malonic esters, (P.), B., 441.

Gump, W., and Monsanto Chem. Co., cellulose [ester] compositions, (P.), B., 95. and Monsanto Chem. Co., resinous composition, (P.), B., 608.

Cartan, L., agreement between balance of nuclear energy and experimental masses

of light elements, A., 402.

Cartenl, A., and Morelli, A., chemical composition of muscle of marine animals. II. Nitrogenous extractives in muscle of Mugil cephalus, A., 225. Action of gastric and duodenal juice and of bile on ascorbic acid, A., 228. Decomposition of ascorbic acid in acid and alkaline solution, A., 1231.

and Vacca, C., composition and calorific value of diets consumed in two [Italian]

maritime colonics, A., 1017.

See also Bietti, G.

Carter, B. M. See Gen. Chem. Co. Carter, C. A. See Carbide & Carbon Chem. Corp.

Carter, C. W., and O'Brien, J. R., maintenance nutrition in the pigeon; vitamin-B3 concentrates; influence of dietary protein and vitamin- B_3 , A., 254.

Carter, D. See Imperial Chem. Industries. Carter, E. B., and Abbott Labs., detoxified pollen extract, (P.), B., 1129.

Carter, F. E., platinum metals as materials of construction, B., 326.

See also Capillon, E. A. Carter, G. E. L. See Prideaux, E. B. R. Carter, G. S., iodine compounds and fertilisation. IX. Fertilisation in the starfish, Asterias rubens, L., A., 372.

Carter, G. W. See Jacobsen, S. C. Carter, H. E., synthesis of a-amino-βhydroxy-n-butyric acids, A., 320.

Carter, J. C., diffusible nature of inhibitory agent produced by fungi, A., 247. Carter, J. D., and Philadelphia Quartz Co., plywood, laminated paper board, or similar composite article, (P.), B., 696.

Carter, P.G. See Imperial Chem. Industries Carter, R. H., solvents for removal of insecticidal fluorine residues from fruits, B., 665.

Carter, S. R., and Record, B. R., determination of particle size of polysaccharides by osmotic pressure measurements, A., 594.

Carter, W. H. N., and Hudson, A., gas evolution and rate of face advance. III., B., 863.

Carter, W. K., Dnncombe, G. H., jun., and Nat. Aluminate Corp., fircolay sewer-pipe body, (P.), B., 990. and Nat. Aluminate Corp., silicious

refractory, (P.), B., 990.

See also Nat. Aluminate Corp.

Carter Carburetor Corporation. See Ericson,

Carthage Mills, Inc., printing of fibrous materials by impregnation, (P), B., 272. Cartland, G. F., and Meyer, R. K., equilin prepared from pregnant mare urine,

See also Braun, H. A., and Meyer, R. K.

Cartledge, G. H., and Ericks, W. P., equilibrium between the trioxalatomanganiate and dioxalatodiaquomanganiate ions, A., 1463. Oxalato complex compounds of tervalent manganese, A., 1477.

Cartwright, C. H., ionic dispersion in the extreme infra-red, A., 268. Hindered rotation in liquid H2O and D2O, A., 545. Abnormal electrical conductivity in powdered tellurium, A., 549. Absorbing and reflecting powers of sulphuric acid solutions in the far infra-red, A., 1047.

and Errera, J., extreme infra-red dispersion of polar and non-polar liquids, A., 776. Atomic polarisation and absorption of liquids in the extreme

infra-red, A., 1179.

Cartwright, H. M., dye retouching [in photography], B., 220.
Cartwright, K. St. G., Campbell, W. G., and

Armstrong, F. H., influence of fungal decay on properties of timber. I. Effect of progressive decay by Polyporus hispidus, Fr., on strength of English ash (Fraxinus excelsior, L.), B., 456.

Carus Chemical Co. See Schumacher, J. Caruthers, N. H., printing of [cotton] sleeve linings, B., 16.

Carver, E. K. See Eastman Kodak Co. Carver, F. S., separation of liquids from solids by means of presses, (P.), B., 912.

Carver, J. S., St. John, J. L., Miller, M. W., and Bearse, G. E., comparative efficiency of various proteins for growing chicks, B., 761.

See also St. John, J. L.Cary, M. K. See Darrow, D. C., and Yannet, H.

Casaburi, V., tanning with iron, B., 706. and Simoncini, E., tungsten tannage, B.,

Casado, E.L. See Batuecas, T.

Casanovas y Amat, C., [delustring with a] solution of aniline in soap liquor, B.,

Casares, J., nitrous and nitric acids in drinking water, B., 957.

Casares, R., colour reaction for organic acids and detection of small quantities of citric acid, A., 1231.

Casazza, R., determination of vitamin-Cin various foods and in human urine, A.,

Casciani, F., and Heilbron, A., calcium hypochlorite for bleaching of pulp, B.,

Case, F. H., preparation of 3:4-dibromodiphenyl, A., 1239. Action of magnesium on homonuclear dibromodiphenyls, A., 1240.

Case, S. L. See Graham, Herbert W. Casein Manufacturing Co. of America, Inc.

See Dunham, H. V. Caserio, E., alleged toxicity to rats of maize germ and its ethereal extract, A., 1553.

Deterioration of melted cheese, B., 713. Cash, L. See Cruess, W. V. Cashman, R. J., and Huxford, W. S.,

photo-electric properties of pure and gas-contaminated magnesium, A., 3. and Jamison, N. C., analysis of photo-

electric data, A., 1321. See also Jamison, N.C.

Cashmore, A. E. See Imperial Chem. Industries.

Casier, H. See Handevsky, H., and Heymans, C. Caspar, E. See Ruggli, P.

Caspari, W. A., calcium sulphate hemihydrate and the anhydrites. I. Crystallography, A., 1054.

Caspe, S., tert.-amines, (P.), B., 442. Casper, L. See Blumenthal, Maurice.

Caspersson, T., distribution of nucleic acids and proteins in chromosomes, 534.

Cassan, II., swelling of gas and coking coals,

Cassel, E. J., ultra-violet absorption of ice, A., 660.

Cassel, H. M., specific heat and binding conditions of adsorbed argon on charcoal, A., 283. Stability of emulsions, A., 562. Catalytic oxidation of carbon, A., 1076.

and Neugebauer, K., adsorption of the heavier rare gases by mercury, A.,

Cassel, L., relation between functional requirements, acetylcholine reaction, and glutathione content of bird muscles, A., 500.

Cassidy, P. R. See Bailey, E. G. Cassidy, T. A. See Wilmot & Cassidy, Inc. Cassie, A. B. D., Jones, M., and Naunton, W. J. S., fatigue in rubber, B., 944.

Cassil, C. C., and Smith, C. M., lead content of chewing tobaccos and snuffs, B., 1233.

Cassirer, S. Sco Hüttig, G. F.

Castagne, E., chemical investigation of the liana "Efiri." IV., A., 259.

Castagné, R., and Osborne, (Mlle.) D., radioactivity of mineral springs of the group Cachat d'Evian, A., 584.

Castagnou, E. See Aubertin, E.

Castagnou, R. See Aubertin, E., and Dervillée, P.

Castaneda, M. R., antigenic relation between Proteus vulgaris X-19 and typhus Rikettsia. III. Antigenic composition of extracts of P. vulgaris X-19, A., 1423.

Castel, A. See Astrne, H.

Castellani, A., and Douglas, M., reactions of organisms on arbutin agar, A., 1422.

Douglas, M., Redaelli, P., and Amalfitano, G., saliva, A., 362.

Castellani, F., hemicellulose and its determination in alkali-cellulose of rayon manufacture, B., 880.

Castellani, T. See Dogliotti, G. C.

Castellino, P. G., action of enzyme extracts on soluble keratin, A., 379.

Castex, M., and Arnaudo, A., normal phenol content of blood, A., 1530.

Castiglioni, A., viscosity of solutions of phenol and of camphor, A., 558. Chemical composition of Hibiscus sabdareffa, L., and its cultivation in Eritrea, A., 1571. Colorimetric determination of camphor, B., 570. Antioxidants for decalin, B., 584. Action of iodine on artificial textiles, B., 982. Menthol and oxidation of linseed oil, B., 1003.

Castillo, M. See Fernández, O.

Castle, E. S., double refraction of chitin, A., 1012.

Castner, J. B. See Du Pont de Nemours & Co., E. I.

Castresana, M. I. See Morales, J. C.Castro, A. See Villela, G. G.

Castro, R., and Portevin, A., determination of gases in steel and ferro-alloys by vacuum melting, B., 889. See also Portevin, A.

Casuccio, S. See Dolfini, G.

Catalán, M. A., and Antunes, M. T. structure of the spectrum of unexcited cobalt, A., 769. Structure of the spectrum of neutral cobalt, A., 916. Connexion between the deep terms of the elements of the iron series, A., 1310.

and Poggio, F., connexion between the Rydberg numbers of the deep terms in

tho iron series, A., 1310. and Román, J. H., measurement of the spark spectrum of molybdenum between 2195 and 2000 A., A., 916.

and Yzu, L., Raman spectrum of sulphuric acid, A., 922.

Sco also Antunes, M. T.

Cataldo, Z., effect of 2:4-dinitrophenol (Thermol) on the gas metabolism of pigeons, A., 1414.

Catalyst Research Corporation, diaphragms, (P.), B., 1073.

See also Bennett, O. G., Frazer, J. C. W., and Jackson, C. B.

Catchpole, H. R., Cole, H. H., and Pearson, P. B., rate of disappearance and fate of mare's gonadotropic hormone following intravenous injection, A., 252. See also Pearson, P. B.

Cate, P. II., milk-soluble sodium alginate as a suspending agent in chocolate milk, B.,

Catel, W., heating of human milk and its nutritional results: converging point for human milk, A., 625.

Cathala, J., and Cluzel, J., spectrophotometric investigation of the hydrolysis of ferric salts, A., 1177. Catheart, W. H. See King, C. V.

Cathode Corporation, Ltd., Whiston, H. W., McIvor, G. A. B., and Thein, F. W. N., deposition of [precious] metal [on textile threads] by electrode dispersion, (P.), B., 506.

Catlow, B. See Blythe & Co.

Cattaneo, A. G., conveyance of liquids by means of their own vapour (thermosiphon principle), B., 399.

Cattaneo, L., passage of hormones (choline, adrenaline, posterior pituitary hormone) from the mother through the placenta to the feetus, A., 642.

Cattelain, E., determination of mercury in mercuric cyanide, A., 43.

Cattle, M. See James, W. O.

Cauchois, (Mlle.) Y., La [X-ray] emission of mercury, platinum, and tungsten, A., 3. K Spectrum of copper, A., 399. La Satellites for the elements 72, 73, 75, 83, 90, and 92, A., 1041. La Satellites of the elements 68, 70, and 71, A., 1169. L Emission and absorption spectra of

rhenium (75), A., 1169. Caudri, J. F. M. See Shell Development Co. Cauer, H., sampling apparatus for chemicalclimatological and technical investigations, A., 47. Determination of total oxidising power, nitrite, ozone, and total chlorine content of ordinary and fætid air. I. [Total oxidising power.] II. Determination of nitrite [ozone, and total chlorine] in air, A., 177; B., 349. Determination of iodine in air, A., 577.

Caugherty, W. E., and Allegheny Steel Co., heat treatment of silicon-steel sheets, (P.), B., 459.

Caughley, F. G. See White, P. Caujolle, F., elimination of cobalt in the bile, A., 1415.

and Monnet, R., effect of acetylcholine hydrochloride on amylolytic activity of pancreatin, A., 894.

Caulfield, W. J., and Martin, W. H., influence of homogenisation on softcurd character of milk, B., 249.

and Riddell, W. H., chloride content of cows' milk, B., 616.

Caulier, G., and Itterlein, E. A., apparatus for mixing and warming not readily inflammable liquids, pastes, etc., (P.), B., 769.

Caulk Co., L. D. See Stack, J. R. Cauquil, (MHe.) G. See Godchot, M.

Cauwenberg, W. J., and Titanium Pigment Co., cobalt titanate, (P.), B., 19.

Cavallaro, L., anomalous dispersion of

metallised gelatin, A., 158.
Cavallini, G. See Bachstez, M.
Cavanagh, B., and Raper, H. S., deuterium as an indicator in fat motabolism, A., 510.

Cavanaugh, G. W., disposal of dairy waste waters, B., 1070.

Cavazza, F., blood, bile, and liver of animals with permanent biliary fistulas, A., 357.

Cave, \bar{D} . B., Furgason, A. P., Ozenbaugh, E. F., Overton, E., and Ashton, P. V., rotary gold concentrator, (P.), B., 65.

Caverly, IV. R. See Du Pont de Nemours & Co., É. I.

Cavett, J. W., thyroglobulin. II. The Van Slyko nitrogen distribution and tyrosine and tryptophan analyses for normal and goitrous human thyro-

globulin, A., 903.

Cawley, C. M., hydrogenation of high-temperature tar and tar distillates, B., 177. Hydrogenation of coal tar,

B., 483. and King, J. G., obtaining motor spirit

and lubricating oils from rubber, gutta-percha, and similar materials, (P.), B., 162.

See also Blackie, A., and King, J. G. Cawood, R. L., grinding, (P.), B., 48.

Cawood, W., movement of dust or smoke particles in a temperature gradient, A., 1198.

and Whytlaw-Gray, R., influence of pressure on coagulation of ferric oxide smokes, A., 1199.

See also Patterson, H. S., and Whytlaw-Gray, R.

Cawston, F. G., [trypanocidal action of] antimony compounds, A., 249.

Cawthon, J. L., jun. See Mitchell, H. A. Cayeux, L., coprolites from North African phosphates, A., 1227. Micro-plankton in the phosphates of Tunis and eastern Algeria, A., 1227. Impregnation of North African phosphates by hydrocarbons, and its origin, A., 1484.

Cayla, J., determination of phosphatase activity of whole blood, plasma, and serum, A., 380.

and Fabre, \hat{F} ., serum-phosphatase during gestation, A., 245. Cayrel, J., Devaux's observation of the

modification of a film of copper sulphide by means of copper, A., 566.

Caywood, A. B., ageing of [alcoholic] liquors, (P.), B., 40.

Cayzer, L. S., strength or baking quality of wheat: its determination by baking tests, B., 1014.

Cazaud, R., fatigue tests on metals, B., 600.

Cazzaniga, A., changes in lime content between various parts of the hen's egg during incubation, A., 512.

Cecconi, R., microchemical identification of d-cocaine, A., 1006.

Cedrangolo, F., glycerophosphatase of the brain, A., 380. Phosphatase in subcutaneous tissue of dogs, A., 1299.

Cela Holding Société Anonyme, [rubber-] vulcanising products, (P.), B., 1168.

Celanese Corporation of America, manufacture and use of [erêped] textile threads, (P.), B., 95. Crêpe threads and crêpe fabrics, (P.), B., 142, 1201. Cellulose esters, (P.), B., 926. and Seymour, G. W., laminated products,

(P.), B., 97.

See also Eichengrün, A., Ellis, G. H., and Francis, C. S., jun.Celarek, J., and Stetkiewicz, S., hæmo-

toxins in gas gangrene, A., 898.
Celeghini, R. See Pratesi, P.
Cella, C., and Georgescu, I. D., vitamin-C

content of the aqueous humour and its antiscorbutic action, A., 766.

Cellan-Jones, G., coke ovens, (P.), B., 1030. Cellière, S. See Arloing, F.

Cellovis, Inc. See Hoffman, W. F., Jones,

W. B., and Kenety, W. H. Cellufoam Corporation, fibrous material in

layer form, suitable for heat-insulation or packing purposes, (P.), B., $314.\,$

Celluloid Corporation, [non-curling] films, foils, thin sheets, etc., (P.), B., 15. Laminated materials and articles, (P.), B., 337. Manufacture or treatment of plastic materials [containing cellulose derivatives], (P.), B., 847. Plastic and coating compositions having a basis of cellulose ester or ether, (P.), B., 895. Articles comprising cellulose derivatives, (P.), B., 927. Esters, (P.), B., 973. [Cellulosic] moulded products [of clongated shape] from thermoplastic materials, (P.), B., 1112. Esters of phosphoric acid, (P.), B., 1194.

See also Walsh, J. F.

Cellulose Acetate Silk Co., Ltd., Hayes, D., Wood, H., and Taylor, F., highly acetylated cellulose, (P.), B., 186.

Cellulose Research Corporation. Olsen, F., and Scharmann, W. G.

Celsi, S. A., reaction for calcium, A., 443. Volumetric analysis of chrome-yellow

(lead chromate), B., 419.
Centanni, E., "enteral" vitamin-I-B₇;
behaviour of the vitamin towards prim-

ary alcohols, A., 254.
Centenero, A. D. See Kobe, F. A.
Centnerszwer, M., and Blu Blumenthal, Micczyslaw, formation and dissociation of peroxides of the alkaline-earth metals, A., 944.

and Swierczewska, (Miss) M., b.-p. lowering by non-volatile substances in ternary systems. I. Influence of potassium chloride on the b.p. of aqueous solutions of calcium chloride, A., 936.

Centola, G., starch nitrate, A., 594. Structure and properties of "byssus" or silk of oysters, A., 670. Acotylation of cellulose. I. and II., B., 230, 405. Mercerisation of cellulose, B., 231. Mercerisation of cellulose, B., 2 Maturation of sodio-cellulose, B., 979.

Centrifix Corporation. See Hawley, C. G. Centrifugal Engineering & Patents Corporation. See Lindberg, S. C.

Cerbaro, E. See Tocco, G.

Cerchez, V., extraction of aromatic hydrocarbons from Rumanian petrol, B., 6. Rumanian benzines, B., 532. Cerecedo, L. R. See Conway, W. J.

Cereseto, A. See Vittori, C.

Ceresola, G. See Timon-David, J. Cerezo, J., and Olay, E., 2:4-dinitrophenylhydrazides, A., 1251.

Ceriotti, A., edible coconut oil, B., 1003. Ceriotto, E., antiseptic properties of wine, A., 517.

Cerkovnikov, E. See Prelog, V.

Cermak, P., and Schoeneck, H., dark bands in the spectra from acoustic and optical double gratings, A., 917.

Cernatescu, R., and Meyer, A., potassium and calcium in blood of pigeons after resection and electrical excitation of the wing nerves, A., 622.

Cernuschi, F., elementary theory of the critical field of a dielectric, A., 923.

Cerobrex, Ltd., Donk, P.J., and MacDonald, A. R., treatment and stabilisation of wheat germ, (P.), B., 122.

Certain-teed Products Corporation. See Croce, M., Gardner, H. F., and Hoggatt,

Cesa, I. See Giroud, A.

Cesaro, G., and Melon, J., cryolite; index of refraction, birefringence, and crystalline forms, A., 1056.

Centerick, P., refractometric studies in normal methyl ketones, A., 1363.

Cha, Y. T. See Chang, K. S.

Chabrol, E., Cottet, J., and Sallet, J., comparativo studies on concentrating power of the liver and kidney with respect to cholalic acid, A., Increase in cholalie acid in the liver and muscle during experimental cholal-amia, A., 885. Variations in bloodcholesterol and -sugar after slow, continuous, mesenteric injection of chlorinated arsenical water containing sodium hydrogen carbonate, A., 1148.

and Sallet, J., adronalino glycæmia in the dog submitted to slow continuous intravenous injections of alkaline mineral water, A., 514. Comparative variations of blood-sugar and bile secretion due to slow and continuous intravenous injection of adrenaline, A., 525.

See also Loeper, M.

Chabrolin, C., destruction of weeds in cereals with phenolic products of tar oil, B., 1060.

Chace, E. M., Sorber, D. G., Rundle, D. H., and Kimball, M. H., treatment of unhulled nuts, (P.), B., 714.

Chace Valve Co., W. M. See Matthews, H. D.

Chacham, I. B. See Schukarev, S. A. Chacharina, T. I. See Gorschtein, G. I. Chadder, W. J. See Cone, W. E.

Chadeloid Chemical Co. See Bush, E. R., Ellis, C., and Toll, K.

Chadenson, L., functional space in quantum mechanics, A., 1053.

Chadeyron, A. See Clews, F. H. Chadshinov, V. N. See Prokopetz, E. I. Chaduik, M. I., highest temperature per-

missible in extraction of willow bark, B., 420.

and Ginodman, G. M., treatment of pine bark for preparation of extracts and solutions, B., 420. Extracting willow bark with the application of sulphite, B., 420.

Chadwick, C. S. See Wolfe, J. M. Chadwick, J., and Goldhaber, M., disintegra-

tion by slow neutrons, A., 5. Chadwick, L. C., soil acidity and plant growth, B., 35.

Chaffee, E. L. See Healea, (Miss) M.

Chahidi, H. Sco De Lavergne, V. Chahidzadeh, M. See Kirrmann, A. Chaikina, S. See Fioletova, A. F. Chaikoff, I. L., Holtom, G. F., and Reichert,

F. L., glycogen content of liver and muscle in the completely hypophysectomised dog, A., 1426.

and Kaplan, A., influence of ingestion of raw pancreas on blood-lipins of completely depancreatised dogs maintained with insulin, A., 238. Comparative effects of pancreas and choline on blood-cholesterol of depancreatised dogs maintained with insulin, A., 1414.

Reichert, F. L., Larson, P. S., and Mathes, M. E., effect of hypophysectomy and cerebral manipulation in the dog on response of blood-sugar and -inorganic phosphorus to insulin, A., 250.

Reichert, F. L., Read, L. S., and Mathes, M. E., effect of adrenaline on bloodsugar, -lactic acid, and -inorganic phosphorus of completely hypophysectomised dogs, A., 525.

Chaiman, S., temperature factor in velocity of the cracking reaction, B., 227.

See also Bljacher, J., and Ramajja, K. S.

Chaimovitsch, R.S. See Volkov, K.P.Chain, S. S. See Nazarov, S. A. Chain Belt Co. See Jewett, M. G.

Chainski, I. A. See Held, N. A. Chait, K. B. See Orshechovski, P. M. Chaix, M. See Donzelot, P.

Chaix, P., kinetics of the attack on glucose and lactic acid by small concentrations of bacteria, A., 114. Action of sulphur compounds on fermentation of glucoso by propionic bacteria (Propionibacterium II), A., 248.

and Fromageot, C., effect of sulphur compounds on fermentation by propionic bacteria, A., 760. Effect of sulphur compounds on fermentation of glucose by propionic bacteria, A., 1561.

Chajdukov, N., Linetzkaja, Z., and Bognovarov, A., vapour pressure of hydrogen fluoride, silicon fluoride, and water over solutions of the system HF-H₂SiF₆-H₂SO₄-H₂O, A., 789.

Chakraborti, B. K., new type of absorption bands of potassium vapour, A., 915.

Chakradeo, Y. M. See Shah, S. V. Chakravarti, D., and Ghosh, B., synthesis of coumarins from phenols and β -ketonic V. Constitution of esters. resorcinol and chlororesorcylaldchyde, A., 858.

Chakravarti, S. K., and Venkataraman, P. R., general method for synthesis of substituted phthalidecarboxylic acids, A., 605.

Chakravarti, S. N., and Kuppnswamy, T. S., chemical investigation of Indian medicinal plants. V. Cryptocryne spiralis, A., 912.

and Rao, P. L. N., cytisine group. II. Further experiments on synthesis of Ewins' structure for cytisine. III. Exploratory experiments on synthesis of cytisine, sparteine, lupinine, and allied alkaloids, A., 742.

Chakravarty, H. L., occurrence of lime in edible Mormordica, A., 123.

Chakravorti, S. K., ammonia bands in the

near infra-red, A., 405.

Chaleil. See Goiffon, R.

Chaletzki, A. M., tertiary α -keto-alcohols, and the influence of radicals (methyl and phenyl) entering into their composition, A., 988.

Chalklin, F. C., L spectra of iron, cobalt,

nickel, and copper, A., 1169. Challacombe, C. N. See Kruger, P. G.

Challenger, F., methylation of glycine, A., 1494.

and Rawlings, A. A., formation of organometalloidal compounds by microorganisms. IV. Dimethyl-

methylallyl-n-propylarsine, A., 460. Challenor, W. A. P. See Imperial Chem. Industries.

Chalmers, J. G., and Peacock, P. R., elimination of certain polycyclic hydrocarbons from the animal body, A., 1019. Chalmers, William, trichloroethyl alcohol,

A., 588.

Chalmers, William (Vancouver). Sec Biely, J.

Chalonge, D. See Arnulf, A., and Barbier, D.

Chalopin. See Giroud, A.

Chaltikian, O., and Proskurnin, M., contact potential between fluid amalgam and mercury in a vacuum. I. Contact potential between sodium amalgam and mercury, A., 1466. Chamberlain, E. A. C. See Townend,

D. T. A.

Chamberlain, L. C. See Dow Chem. Co. Chamberlain, N. H. See Speakman, J. B.Chamberlin, F. S., comparative toxicity of dust mixtures containing derris and cubé to tobacco flea beetle under cage

conditions, B., 1118. Chamberlin, N. S. See Rudolfs, W. Chambers, L. A., soft curd character induced in milk by intense sonic vibr-

ation, B., 664. and Flosdorf, E. W., denaturation of proteins by sound waves of audible frequencies, A., 888. Sonic extraction of labile bacterial constituents, A.,

1561.

See also Flosdorf, E. W. Chambers, R., Beck, L. V., and Belkin, M., secretion in tissue cultures. I. Inhibition of phenol-red accumulation in the chick kidney, A., 374.

See also Beck, L. V.

Chambers, S. See Ferrell, E. Chambionnat. See Le Tourneur-Hugon. Chambon, A. Sec Chambon, M.

Chambon, M., Croizat, P., Mallet-Guy, P., and Chambon, A., coloration by mucicarmine and composition of mucin, A., 1013. Composition of biliary mucus, A., 1013.

See also Arloing, F. Champ. See Brigando, J.

Champagne Paper Corporation. See Jones. Edwin P.

Champetier, G., hydration of chromic chloride in heavy water, A., 159. Separation of isotopes, A., 1349. See also Giroud, A.

Champion, C. H., lamp carbons for optical projection apparatus, (P.), B., 845. Lampblack, etc., (P.), B., 1079.

and Vanderbilt Co., Inc., R. T., composition of matter [filler for papers,

textiles, etc.], (P.), B., 318.

Champion, F. C., scattering of fast β-particles by nitrogen nuclei, A., 401. and Alexander, N. S., end-points of the β -ray spectra of radium-E and thorium-C'', A., 772. Champion Coated Paper Co. See Bradner, D. B.

Champion Fibre Co. See Cunningham, N. Champion Spark Plug Co., electric insulator and its manufacture, (P.), B., 647.

Champlin, A. See Leonard, C. S. Champlin, F. M., Goresline, H. E., and Tressler, G. K., champagne and sparkling

burgundy, B., 119. Champney, H. H. See Hercules Powder Co. Champsaur, L. M. C., mixed artificial leather and parchment, (P.), B., 928. Imitation leather or American cloth, (P.), B., 1147.

Champy, C., anti-masculinising action of the male hormone, A., 1031.

See also De Caraman, M.

Chan, G. A. See Jasiukevitsch, S. M.
Chance, H. M., apparatus for separating materials of different sp. gr., (P.), B., 722. Separating process, (P.), B., 961. Separation of materials of different specific gravities, (P.), B., 1025*.

Chance Bros. & Co., Ltd., and Jolly, J. W., separators for electric storage batteries, (P.), B., 1214.

Chancellor, P. M., kinematography in the tropics, B., 1020.

Chancellor, W. C., and Nat. Tube Co., normalising of steel, (P.), B., 1045. Chandlee, G. C. See Kieft, L., and Scholl,

A. W.

Chandler, A. C., prevention of damage [to wood] by termites, (P.), B., 597. Chandler, A. F. B. See Westinghouse

Lamp Co. See Bergstrom, F. W. Chandler, C. See Bergstrom, F. W. Chandler, D. See South Metropolitan Gas Co.

Chandler, R. F., jun., absorption, distribution, and seasonal movement of potassium in young apple trees: effect of potassium fertiliser on potassium and nitrogen contents and growth of trees, A., 1432.

Chandler, W. H., Hoagland, D. R., and Hibbard, P. L., little-leaf or rosette of fruit trees. IV., B., 1118. Chandler, W. P., jun., and Blaw-Knox, Ce.,

effecting contact between gas and liquid,

(P.), B., 578. Chandler, W. R., relationship of mill charge to surface area of cement, B., 193.

Chandler Chemical Co. See Orozco, G. H. Chandoke, D. P., ground-water resources of Khilchipur State, Central India, B., 430. Chaney, J. L., device for indicating temper-

ature of liquids, (P.), B., 352. Chaney, L. V., Schulze, W. A., and Phillips Petroleum Co., desulphurisation of mercaptan-bearing oil, (P.), B., 358.

See also Schulze, W. A. Chaney, N. K. See Smith, C. N.

Chang, C. See Tseng, C. L.
Chang, C. K. See Kao, T. Y.
Chang, C. S. See Tang, P. S.
Chang, C. T. See Leo, S. T.

Chang, C. Y., and Schuette, H. A., cuproalkali metal carbonate solution in determination of reducing sugars. II. Modification of Pellet's solution, A., 709.

Chang, H. C., liberation of acetylcholine from perfused human placenta, A., 1550.

See also Chen, K. C., and Wen, I. C.Chang, H. L., and Wang, Y. C., refining molasses by electrolysis, B., 388.

Chang, H. Y., and Chang, T. H., pulp from reeds, B., 586. Air-blowing soya-bean oil, B., 749.

Chang, K., and Sah, P. P. T., derivatives of p-homosalicylaldehyde, A., 851. 6-Methylcoumarin and its methylation products, A., 858.

Chang, K. C., and Chao, Y. S., cottonseeds. Nutritive value of cottonseed meal,

and Kang, T. T., alcoholic fermentation of sorghum grain in the solid state, B.,

Chang, K. J. See Chi, Y. F., and Wang, H. H.

Chang, K. S., and Cha, Y. T., young-ki-shih, B., 667.

Chang, T. H. See Chang, H. Y. Chang, T. L. See Riesenfeld, E. H. Chang, T. Y., and Ch'iao, S. T., semipermeability and neutral salts, A., 156.

Chang, W. Y. See Hsieh, Y. M.

Chang, Y. See Munds, E. Chang, Y. T., and Collier, H. B., vitamin-Ccontent of Szechwan fruits and vegetables, A., 1304.

Chanin, E. M., preparation and properties of acid-resistant coment, B., 545.

Channon, H. J., and Smith, J. A. B., dietary prevention of fatty livers; triethyl - β - hydroxyethylammonium hydroxide, A., 510.

and Wilkinson, Harry, effect of various fats in production of dietary fatty

livers, A., 886.

See also Beeston, A. W., and Best, C. H. Chanutin, A., and Ludewig, S., experimental renal insufficiency produced by partial nephrectomy. IV. Creatine content of hypertensive hypertrophied rat heart after dried meat diet, A., 1017. Blood plasma-cholesterol and -phospholipin-phosphorus in rats fol-lowing partial hepatectomy or ligation of the bile duct, A., 1283.

See also Ludewig, S. Chao, C. Y., and Fu, C. Y., resonance absorption of neutrons, A., 1173.

Chao, I., osmotic pressure and muscular contraction, A., 1549. Effect of calcium and curare on muscular contraction and neuromuscular transmission, A., 1553.

Chao, K.J. See Chow, T.C. Chao, S. H., photographic infra-red absorption spectrum of gaseous ammonia, A., 1049.

See Chao, T. P. Chao, T. F.

Chao, T. P., Hsiung, K. H., and Chu, Y. L., adsorption of anions by precipitated barium sulphate, A., 154. Wu, D. K., Chiang, W. P., and Chao,

T. F., adsorption of anions by precipitated calcium oxalate, A., 423. Chao, Y. H. See Tang, T. H. Chao, Y. S. See Chang, K. C.

Chao-Ying, M. See Shang-Yi, C. Chapiro, E. See Grinev, D.

Chapman, A. W., testing of temperatures, (P.), B., 623.

and Fidler, F. A., Beckmann change. IV. Effects of substitution on rate of rearrangement of ketoxime picryl ethers, A., 852.

Chapman, E. M., phthalein test of kidney function in anomia, A., 1014.

Chapman, F. F. See Du Pont de Nemours

& Co., E. I.
Chapman, G. See Giblin, J. C.
Chapman, G. H., violet agar reaction as a differential characteristic of the Micrococcus catarrhalis group, A., 384.

Chapman, H. D., effect of nitrogenous fertilisers, organic matter, sulphur, and colloidal silica on availability of phosphorus in calcareous soils, B., 1059.

Chapman, J. A. See Sommer, W. H. Chapman, L. F. See Dent, L. M. E. Chapman, P. J. See Pearce, G. W.

Chapman, W., and Dufaycolor, Ltd., [apparatus for contact printing in] colour photography, (P.), B., 764.
Chapman, W. E. See Lamb, M. C.

Chapman, W. J. See Komarek, G.

Chapman, W. L., and Vallez Rotary Filters
Co., filter, (P.), B., 962.
Chapman, W. M., felspar twinning in a

differentiated sill, A., 585.

Chapman Valve Manufacturing Co. See Malcolm, V. T.

Chappel Bros., Inc., readily digested meatprotein preparation, (P.), B., 123.

Chappell, F. L., and Sheffield Farms Co., Inc., [acid-precipitated] casein, (P.), B., 122.

Chappell, M. L., motor fuels from hydrocarbon oils, (P.), B., 486.

Charachorin, F., Elovitz, S., and Roginski, S., mechanism of catalytic oxidation of carbon monoxide on manganese dioxide. III. Existence of a critical lower pressure limit in the heterogenous oxidation, A., 1076.

Charaz, S. S., and Gornostaipolski, S. E., production of light papers from chaffcontaining flax-hemp rope, B., 405.

Charch, W. H., and Du Pont Cellophane Co., Inc., moisture proof material, (P.), B., 96, 1147. Moisture proof [wrapping] material, (P.), B., 366.

Snyder, J. E., and Du Pont Cellophane Co., Inc., method of laminating, (P.),

B., 97.

Chargaff, E., Bancroft, F. W., and Stanley-Brown, M., chemistry of blood coagulation. I. Determination of inhibition of blood clotting; methods and units. II. Inhibition of blood clotting by substances of high mol. wt., A., 1285.

and Levine, M., chemical composition of B. tumefaciens, A., 1561.

and Schaefer, W., specific polysaccharide from the bacillus Calmette-Guerin (BCG), A., 248.

Charikova, A., and Tikhaja, M., oxidation and catalysis in muscles of warm-blooded II. White and red muscles, A., 1017.

Charin, A. See Schmuk, A.

Charin, S. E., and Smirnova, L. G., determination of colloids in the sugar factory,

Charit, A. J., flavins and metabolism. I. Flavins and amylolysis, A., 894.

and Chaustov, N. V., flavins and metabolism. II. Flavins and proteolysis. IV. Seasonal changes in flavin content of the liver in cattle. V. Effect of alloxan and thymonucleic acid in the diet on flavin content of rats' liver, A., 755, 894.

Neufach, S. A., and Morozova, K. N., flavins and metabolism. III. Action of laetoflavin and methyl alcohol extract of liver on blood-glycolysis, A., 755.

Charkov, D. V., application of fertilisers for cotton at autumn ploughing, B., 210. Charlamov, V. N. See Goltz, L. N. Charles, A. F., and Scott, David A., heparin.

IV. Chemistry of heparin, A., 1534.

Charles, D. A., and Sommer, H. H., control of sedimentation in homogenised milk, B., 249.

Charley, V. L. S., fruit products. V. Concentration of fruit juices by freezing, with special reference to apple juice.
VI. Fruit syrups. VII. Production VI. Fruit syrups. VII. Production of fruit squashes. VIII. Production of fruit wines, B., 902. Fruit-flavoured milk drinks, B., 952.

Charlot, G., volumetric determination of nickel in presence of cobalt, A., 444.

Charlton, D. B., and Levine, M., germicidal efficiency of chloramine-T and calcium hypochlorite, B., 46.

Charmandarian, M. O., and Kopeliovitsch, E. L., preparation of manganese catalysts for recovery of sulphur from hydrogen sulphide, B., 452.

and Petrov, A. V., influence of certain factors on application of starch for acceleration of sedimentation of sludge in preparation of caustic soda by the

lime method, B., 452. and Troitzkaja, N. I., silica gel from nepheline, B., 591.

Charmetant, C., electrolysis of bromides and iodides of zinc, nickel, and cobalt in mixtures of water and ethyl alcohol, A., 170.

Charnley, F. See Brocklesby, H. N. Charrier, G., and Chigi, E., alkylation and arylation of benzanthrone by Grignard reagents; oxidative degradation of 6-phenylbenzanthrone, A., 1511.

Charrin, V., radium minerals, A., 307. Bituminous shale in France, B., 773. Natural gases in France, B., 1027.

Charriou, A., and Valette, (Mlle.) S., influence of sulphur compounds on properties of highly sensitive photographic emulsions, B., 45. Cellulose acetate films: production of undeformable films, B., 220. Apparatus for measuring the limit of resolving power of [photographic] emulsions, B., 1019. So-called "finegrain" developers, B., 1020. Achievement of undeformable films for photogrammetry, B., 1180.

Chartschenko, K. P., simplification of cleaning processes at modern coal washeries, B., 257.

Chase, A. M., absorption spectrum and bleaching kinetics of visual purple, A., 624.

Chase, D. See Taylor, F. H. L.

Chase, H., vinyl resins for safety glass, B., 704.

Chase, S. W. See Kick, C. H. Chase Companies, Inc. See Wood, M.L.Chaskes, I. Z., distribution of moisture in

ammonium nitrate. I., B., 316. Chaskina, J. D. See Klevke, V. A.

Chastellain, F., dicyanodiamide, A., 60. Chatagnon, C. See Chatagnon, P. Chatagnon, P., and Chatagnon, C., bromine metabolism in man, A., 756.

Chatalbash, N. See Hammett, F. S. Chatelain, P., geometrical and optical study of p-azoxyphenetole crystals, A., 1186.

Châtelet, M., system cobalt chloride, ammonium chloride, ammonia, water, A., 290. Calorimetric study of action of ammonia on cebalt chloride in water in presence of ammonium chloride, A., 797.

and Kertész, F., activity of chloride ions in solutions of complex chlorides of cobalt and chromium, A., 29.

"Châtillon" Società Anonima Italiana per le Fibre Tessill Artificiale, spinning of artificial silk, (P.), B., 926. Chatschchoshev, M. S. See Slavinski,

M. P.

Chattaway, F. D., action of ammonia on esters, A., 595.

Drewitt, J. G. N., and Parkes, G. D., condensation of halogen-substituted aldehydes with nitro-paraffins, A., 1362. Action of amines on esters of trichloronitrohydroxy-paraffins, A., 1493.

and Witherington, P., trichlorohydroxyaliphatic amines, A., 58.

Chatterjee, I. See Carbery, M. Chatterjee, K. M. See Datta, S. Chatterjee, L. M. See Prosad, K.

Chatterjee, N., coagulation of ferrocyanide sols containing varying amounts of potassium ferrocyanide, A., 157. Diphenyl series. IV. Action of oxalyl chloride on diphenyl derivatives, A., 723.

Chatterjee, N. N., action of solvents on some Indian coals, B., 401.

Chatterjee, S. D., influence of magnetic fields on dielectric constant of liquids, A., 924. Influence of magnetic field on coefficient of viscosity of liquids. II. A., 1454.

Chatterji, N.K., respiration of mango leaves (Mangifera indica), A., 1162.

Chatterji, U.N. See Pal, N.L. Chaudhury, S.G. See Mukherjee, J.N.Chaudin, A., retarding action of formaldehyde, acetaldehyde, and acetone on enzymic hydrolysis of sucrose, A., 110. Changes in the curve of enzymic hydrolysis of sucrose by the action of heat on the enzyme, A., 1555.

Chaudron, G., protection of light-metal alloys, B., 413. Gas in metals, B., 550.

See also Bénard, J., Herenguel, J., Lacombe, P., and Michel, A. Chaudun, (Mile.) A. See Colin, II.

Chaumeton, (Mile.) L., silver salts of aminosulphonic acid, A., 944.

Chaussin, J. See Belluc, S. Chaustov, N. V. See Charit, A. J. Chave, C. T., vacuum-producing equipment for chemical plant use, B., 527.

Schutt, H. C., and Gyro Process Co., cracking oil in vapour phase, (P.), B., 534.

Chazanov, E. I., electrolytic refining, and its place in production of aluminium, B., 890.

Chazanovitsch, I. K., lovehorrite of the Chiba swamps, A., 449.

Chédin, J., Raman effect in fuming sulphuric acid, A., 9. Raman effect in mixtures of oleum and nitric acid. A., 279. Quantitative analysis by the Raman effect of sulphato-nitrie mixtures, A., 694.

See also Dalmon, R.

Cheel, E., and Morrison, F. R., cultivation and exploitation of the Australian nut (Macadamia ternifolia, F.v.M., and M. integrifolia, Maiden et Betche), B., 422.

Cheftel, H., and Pigcaud, M. L., determination of small amounts of lead in biological material, A., 536. Determination of ascorbic acid by titration, A., 1567.

Cheh-Liang, K. See Teng-Han, T.

Cheifetz. See under Kheifetz. Chekin, P. A., Semenov, A. I., and Galinker, J. S., underground gasification of coals. B., 771.

Chelemski. See under Khelemski.

Chelle, L., detection and determination of hydrobromic acid in hydrochloric acid, A., 811.

and Vitte, G., monobromoacetic acid and normal bromine of wine, B., 470.

Cheltnam, C. H. See Gen. Electric Co. Cheltnam, C. H. W., centrifugal apparatus for separating and collecting dust or other solid particles from air or gases, (P.), B., 176. Centrifugal apparatus for collecting dust or other solid particles from air or gases, (P.), B., 176.

See also Gen. Electric Co.

Chemical Construction Corporation, and Bartholomew, F. J., thermal decomposition or volatilisation of liquid carbonaceous material, (P.), B., 533. and Rumple, J. M., sulphur dioxide

from acid sludge, (P.), B., 533. See also Hechenbleikner, I., Mast, W. C., Richardson, R. S., and Titlestad, N.

Chem. Engineering Congress, World Power Conference, low-temperature carbonisation of coal, B., 772.

Chem. Engineering & Wilton's Patent Furnace Co., Ltd., Wilton, T. O., and Wilton, N., purification of coal gas, (P.), B., 260.

Chem. Foundation, Inc. Sec Osterberg. A, E.

Chem. Machinery Corporation. See Short,

Chemical & Pigment Co., Inc. See Burruss, D. N., jun.

Chemical Research & Development Co. See Basore, C. A.

Chemische Fabrik, R. Banmheier Akt.-Ges., nucleus-substituted aliphaticaromatic sulphuric acids [textile assistants], (P.), B., 1197.

See also Kern, R.

Chem. Fabr. Benckiser G.m.b.H., J. A. and Draisbach, F., improvement of potassium soaps, (P.), B., 800.

Chem. Fabr. Buckau, artificial mass [from chlorinated rubber], (P.), B., 753.

Chem. Fabr. Budenheim Akt.-Ges., evaporation of liquids, (P.), B., 673.

Chem. Fabr. Grünau, Landshoff & Meyer Akt.-Ges., improving qualities of hydraulic binding means, (P.), B., 373. Therapeutically active derivative of phthalic acid, (P.), B., 523.

Chem. Fabr. vorm. Heyden Akt.-Ges., stable preparations of compounds containing active halogen, (P.), B., 311. Fluorescent materials and screens made therewith, (P.), B., 941.

and Hoessle, C. H. von, colloidal solutions of metals [silver] and of metallic compounds in poly[hydric] alcohols, (P.), B., 25.

Chem. Fabr. vorm. Sandoz, alcohols containing more than four carbon atoms, (P.), B., 263. Anthraquinone dyes, (P.), B., 362, 447. Sulphuric esters of higher-molecular alcohols, (P.), B., 441. [Chromable] azo-dyes, (P.), B., 781. Azo-dyes [for acetate silk], (P.), B., 826. Detergent, cleansing, emulsifying, softening, and dispersing agents, (P.), B., 1004. cycloHexenylalkylhydantoins, (P.), B., Separation and isolation of pure 1018. crystallised alkaloids of ergot, (P.), B., 1179.

Chem. Fabr. Stockhausen & Co., sulphonation products [wetting etc. agents, from phosphatides], (P.), B., 871.

Chem. Forschungsges. m.b.H., printing surfaces [containing polyvinyl alcohols], (P.), B., 1007.

Chem. Werke vorm. H. & E. Albert, washing, detergent, and softening agents [for textiles], (P.), B., 787.

Chen, A. L. See Chen, K. K. Chen, C. Y., influence of protein on longevity, A., 369. Effect of high-fat and high-protein diet on growth of rats, A., 1409. Determination of vitamins in common Chinese foods, B., 217. Vitamin content of Chinese mushrooms, B., 1125.

and Ariyama, H., correlation between avitaminosis- B_4 and composition of

the diet, A., 646.

Chen, G., transfer resistance, A., 1466.

Overvoltage, A., 1468.

Chen, G., and Van Dyke, H. B., amount of thyroid-stimulating hormone in the anterior lobe of the pituitary of the thyroideetomised rabbit, A., 1030. Chen, H., and Sah, P. P. T., β-naphthoyl-

hydrazine as reagent for identification of aldehydes and ketones, A., 873.

Chen, H. K. See Yu, T. F. Ch'en, J. L., and Band, W., longitudinal thermoelectric effect. VI. Mercury, A.,

Chen, K. C., and Chang, H. C., basal metabolism in experimental anæmias, A.,

See also Chou, S. K., and Chu, H. I. Chen, K. K., and Chen, A. L., alkaloid of chin-shih-hu, A., 88. Pharmacochin-shih-hu, A., 88. Pharmacological action of dendrobine, the alkaloid of chin-shih-hu, A., 108.

Chen, A. L., and Anderson, R. C., potency of eleven crystalline cardiac principles from plants, A., 1294.

and Rose, C. L., detoxification of dendro-bine by "sodium amytal," A., 1415. Rose, C. L., and Clowes, G. H. A., cyanide poisoning, A., 1554.

Swanson, \tilde{E} . E., and Hargreaves, C. C., action of ergometrinine, A., 1553.

Swanson, E. E., Kleiderer, E. C., and Clowes, G. H. A., ergotocine, ergometrine, ergostetrine, and ergobasine, A., 1022.

See also Arnold, H. L., Lee, H. M., and

Swanson, E. E.
Chen, S. Y. See Tsao, P. N.
Chen, T. T., reduction of cystine by sodium sulphite, A., 597. Double electrode potential and oxidation-reduction potential, A., 938. Iodometric determination of cysteine, A., 1006.

Chen, Y. H. See Brockmann, H. Cheney, L. C. Sce Gilman, H., and Kinney, C. R.

Cheney, M. E., Meston, A. W., and Moto Meter Gauge & Equipment Corp., viscosi-

meter, (P.), B., 963. Cheng, F. W., McCrae's test [for salicylic acid]: special test for hexamethylenetetramine, A., 458. and Liu, P. N., iodine in Chinese common

salt, B., 452.

See also Wang, H.

Cheng, H. C., depolarisation in the Raman spectra of halogenated derivatives of ethyl acetate, A., 10. Constitution of the a\beta-dihalogen derivatives of ethane,

and Lecomte, J., vibration frequencies of chlorine derivatives [of aliphatic compounds] deduced from infra-red absorption and Raman spectra, A., 546.

Cheng, L. T. See Hartman, R. J.

Cheng, T. Y. See Leo, S. T. Cheng, Y. C., Kwangtuug oil shale, B., 1137. Cheng Da-Chang, quantitative separation of protoactinium from pitchblende by means of titanium oxide, A., 173.

and Li Houang, occlusion of proto-actinium by sulphides insoluble in hydrochloric acid, A., 440. Hydrolysis of protoactinium and its reaction with sodium thiosulphate in acid solutions, A., 690.

Cheraskova, E., and Veisbrute, L., determination of total and free selenium in [rubber] vulcanisates, B., 112. Determination of acid value of dark-coloured tars, B., 727.

Cherbuliez, E., pressure regulator for a partial vacuum, A., 1085.

and Herzenstein, A., geochemical significance of hydrolysis of sulphur by water, A., 1086.

and Weibel, R., hydrolysis of sulphur by water below 100°, A., 1079.

Chernov, N. V., quality of leather, B., 421 Chérouvrier, M. See Soyez, E.

Cherry, O. A., and Economy Fuse & Manning. Co., potentially reactive phenolic condensation products, (P.), B., 288. [Cellulose ester] lacquer, (P.), B., 463. Hot-moulding composition containing a fabric filler, (P.), B., 1111.

Cherry-Burrell Corporation, plate heat exchangers for fluids, (P.), B., 351.

See also Fielder, H.S.Chertok, V.R., and Beresovska, N.V., determination of ergot in baked bread, B., 120.

Cherubino, A. See Pirrone, F. Chesny, H. H., magnesium compounds from ocean water, B., 693.

Chester, A. E., and Ferro Enamel Corp., material for pickling and cleaning [metal], (P.), B., 646.

Chester, J. H. See Swindon, T.

Chesterman, D. R., and Foster, C. L., creeping movements of Spirogyra, A., $143\bar{1}$.

and Nickelson, A. S., complex nickel compounds. I. Formation and solvation of nickelous chloride in some non-aqueous liquids, A., 1350.

Chesters, J. H., and Lee, L., slag-resistance of steelworks refractories, B., 885.

Chevalier, G., surface and subsoil irrigation in south Algeria, B., 1010. Chevalier, R. See Guittonneau, G. Chevallier, A., control of vitamin-A content

of cod-liver oils, B., 558.

and Choron, Y., vitamin-A content of the liver and its variations, A., 389. Storage of vitamin-A in the guineapig, A., 645.

and Dubouloz, P., spectrophotometric method for characterisation of photolabile substances by their rate of decomposition, A., 528. Arrangement for converting a spectrograph into a monochromator, A., 581. Photochemical decomposition of vitamin-A in alcoholic solution. I. and II., A., 1159, 1428.

Dubouloz, P., and Manuel, S., effect of solvents on spectral curve of vitamin-A and on its photochemical degradation,

and Espy, L., values of the motor chronaxia of the normal guinea-pig and the hepatic vitamin-A content, A., 764.

Chevallier, A., and Roux, H., conditions of determination of reducing activity of tissues, A., 636.

Chevallier, R., and Laporte, M., permanent magnetisation of steel in the neighbourhood of a circuit carrying a rapid aperiodic discharge, A., 1188.

Chevassu, D. See Enselme, J. Chevenard, P., corrosion of ferronickel in steam through voids, and its significance for turbine blades, B., 548. Alloys tough and rustless at raised temperatures, B., 839.

and Waché, X., acceleration of a structural reaction in steel by mechanical

constraint, B., 150. See also Portevin. A.

Chèvremont, M., rôle of tissue metabolism in radio-sensitivity of the thymus of the

guinea-pig, A., 232. Chewning, J. W., Dickerman, W. C., jun., and Pure Oil Co., treatment of acid sludge [from refining of hydrocarbon oils], (P.), B., 680.

Chewning, W. L., and United Engineers & Constructors, apparatus for scrubbing of

gas, (P.), B., 353.

Cheymol, J., verbenalol, aglucone of verbenalin, A., 1366. Dichlorodifluoromethano: a recent industrial refrigerant, B., 959.

Chi, Y. F., pyrimidines; synthesis of 4-methyl-5-n-butyleytosine, A., 1126. and Kao, Y. S., pyrimidines; molecular rearrangement of 2-ethylthiol-6-thiocyano-4:5-dimethylpyrimidine; synthesis of 4:5-dimethylcytosine, A., 865. Chemical investigation of the leaves of Epimedium macranthum (yin yen

ho), Å., 1434.

Kao, Y. S., and Chang, K. J., alkaloids of Fritillaria roylei. I. Isolation of

peimine, A., 1131.

Kao, Y. S., and Huang, Y. T., pyrimidines; molecular rearrangement of 2ethylthiol-6-thioeyano-4-phenylpyrim-

idine, A., 865.
and Lee, Y. M., chemical examination of the Chinese drug, tu hao, A., 1435.
and Yang, M. C. H., synthesis of 1-phenyl-2-methyl-4-ethyl-5-pyrazolone, A., 1125.

Chia, (Miss) P. T. See Tseng, C. L. Chiancone, F. M., physico-chemical char-

acters of urine of rats on a diet of fibrin and kept in glass cages, A., 228. Formation of xanthurenic acid: experiments on man, A., 369. Physiological and pharmacological action of sulphur, A., 372. Effect of creatine on muscle tonus, A., 633.

and Poppi, U., action of bulbocapnine

on the frog's heart, A., 376.

Sec also Poppi, U.

Chiang, H. C., and Tseng, C. L., determination of organic sulphur. I. Parr

bomb method, A., 744. See also Adolph, W. H.

Chiang, W.P. See Chao, T.P. Ch'iao, S.T. See Chang, T.Y.

Chiappero, A., golden sulphides of anti-mony, B., 986.

Chibnall, A. C., Piper, S. H., and Williams, E. F., fatty acids of phrenosin and kerasin, A., 454.

See also Vickery, H. B. Chicago By-Product Coke Co., determination of lampblack, fly ash, and tar in reformed natural gas, B., 726. Chicago Pump Co. See Durdin, A. C., jun. Chicago Vitreous Enamel Products Co. See Hogenson, W

Chichester, D. F. See Russell, W. C.

Chiek, H. See Hume, E. M. Chieon, J. V., hardening or tempering of copper, (P.), B., 330.

Chiert, S., determination of turpentine and volatile thinner in paints and pastes, B., 510.

Chigi, E. See Charrier, G.

Child, A. M., and Fogarty, J. A., effect of interior temperatures of beef muscle on the press fluid and cooking losses,

See also Harvey, R. B.

Child, C. See Imperial Chem. Industries. Child, D. E., Child, J. L., and Hancock Brick & Tile Co., clay working, (P.), B., 1041.

Child, R., and Ramanathan, S., fatty acids of margosa oil, B., 607.

Child, J. L. See Child, D. E. Child, W. C. See Holmes, A.

Childs, E. C., transport of water through heavy clay soils. I. and III., B., 245, 1222

See also Nicholson, H. H.

Childs, L., substitutes for lead arsenate in codling-moth control in the Hood River Valley, B., 247. See also Wilcox, J.

Childs, W. H. J., near infra-red bands of methane. I. General survey, and a new band at 11,050 A., A., 662.

and Jahn, H. A., absorption spectrum of heavy methane (MeD) in the photographic infra-red, A., 1318. Chilingarjan, A. A. See under Tschilin-

Chillas, R. B., jun., and Atlantic Refining Co., apparatus for contacting liquids with

vapours or gases, (P.), B., 578. Chilton, A. H. See Stone & Co., J. Chilton, T. H. See Du Pont de Nemours & Co., E. I.

Chinaglia, A. See Testolin, M.

Chinchalkar, S. W., magnetic birefringence in solutions of paramagnetic salts of rare earths, A., 13. Magnetic birefringence in solutions of organic substances, I., A., 271.

Chines, C., volumetric determination of mercuric chloride, A., 579.

Chino, I. See Sato, Harutaro.

Chinoin Gyógyszer, és Vegyészeti Termékek Gyára R.T. See under Kereszty & Wolf. Chinoy, J. J., modification of micro-Zeisel apparatus for determination of mothoxyl

and ethoxyl groups, A., 1397.

Chiong, Y. S. See Andrade, E. N. da C.
Chiplonkar, V. T., electric discharge in gases and the Debye-Hückel theory, A., 398. Raoult depression in ordinary and heavy water, A., 1197.

Chipman, J., and Fontana, M. G., determination of oxygen and nitrogen in steel; improvements in the vacuum-fusion method, B., 105.

See also Fontana, M. G.

Chiquoine, J. E., and Blaw-Knox Co., mixing apparatus, (P.), B., 961. Chirnoaga, E., simplified method of separ-

ating and identifying cations of second group, A., 695.

Chirnside, R. C., analysis of glasses for modern electric-discharge lamps, B., 275.

Chirvani, F. See Pariselle, H. Chisin, J. I., and Sungalovskaja, L. R., sulphonation of the heavy fraction of Gdov shale tar, B., 626.

Chisini, A. See Semerano, G. Chistoni, A., and Foresti, B., potassium polythionates as antidotes for hydrocyanic acid poisoning, A., 241.

Chitre, R. G. See Limaye, D. B.
Chittenden, E. See Askew, H. O.
Chittenden, F. D., and U.S. Rubber Co., cleaning of balata and similar gums, (P.), B., 465.

Chittum, J. F., and Hunt, H., liquid ammonia as a solvent. V. Metallic solutions, A., 794.

See also Grubb, H.M., and Hunt, H.

Chittum, J. P. See La Mer, V. K.

Chitwood, H. C., and Reid, E. E., alkylglyoxalidines, A., 344.

Chitwood, I. M. See Kunerth, B. L.

Chiurdoglu, G., spatial configurations of 1:2-dialkylcyclopentan-1-ols, A., 201. Chloride Electrical Storage Co., storage-

battery plates, (P.), B., 241.

and Brown, A. W., electric accumulators, (P.), B., 892.

Chmelewsky, A. See Woog, P.

Chmelnitzkaja, I., Korovin, M., and Goldman, E., copper lake of alizarin-blue base (1:2-dihydroxyanthraquinone-3quinoline), A., 735.

chmielewska, I., colouring matters of violet potatoes, A., 480.

Chmielewski, T. See Wierzuchowski, M. Chmielnicka, A. See Szperl, L.

Choay, A. See Rathery, F.

Chochlova, A. V. See Molikov, L. P.

Chodakov, and Nikonova, production of pergamyn from bleached and unbleached pulp, B., 405.

Chodat, F., and Mirimanoff, A., preservation and rate of respiration of yeasts in the presence of glucose, A., 639.

Choduiko, A. D., recovery of vanadium from cast iron, prepared from Ural titaniferous magnetite, in an open-hearth furnace at the Novo-Tagilisk metallurgical plant, B., 23.

Chokkanna, I. N. G., rôle of potassium in the sugar synthesis of Sorghum saccharatum (sugar sorghum), A., 767.

Cholak, J. See Kehoe, R. A. Cholnoky, L. von, preparation of cryptoxanthine from paprika, A., 487. See also Zechmeister, L.

Cholodni, N. G., hormonisation of grains, A., 1570. Growth hormones and development of plants, A., 1570.

Cholstron, C. T., dyeing of astrakhan, B., 188.

Chomtschuk, A. A. See Grigoriev, P. N.

Chomntin, M. S. Seo Dobrjanski, A. F., and Suknevitsch, J.

Chopin, M., extensimetric examination of wheats and flours, B., 712.

Chopra, J. D., effects of artificial manures on sugar cane, B., 467.

Chopra, N. N., and Ray, J. N., " methoxy-

oxypalmitine," A., 1395. Chopra, R. N., Gupta, J. C., and Roy, A. C.,

action of emetine on activity of the adrenal and thyroid glands, A.,

Sen, B., and Sen, G., amibiarson in treatment of chronic intestinal amobiasis, A., 1014.

See also Ghosh, Sudhamoy.

Chorine, V., rôle of fats and cholesterol in the Henry reaction, A., 365.

and Crougue, O., blood-cholesterol in leprosy, A., 1015.
Choron, Y. See Chevallier, A.

Chou, C. Y., and Wu, H., denaturation of proteins. XV. Formol titration of proteins in carbamide solution, A., 1004.

See also Wang, Y.

Chou, L. H. See Thielacker, W. Chou, S. K., Chen, K. C., Liu, S. H., and Fang, S. S., serum electrolytes and mineral metabolism in a ease of Addison's disease; use of adrenal cortical extract (eschatin), A., 1538. See also Chu, H.J.

Chou, T.Q., alkaloids of Chinese gelsemium, Ta-ch'ayeh, A., 618. Alkaloids of Corydalis ambigua of China, Cham et Sch. (yen-lu-so). VI. Identification of corydalis D and M, A., 1527.

and Mei, P. F., constituents of the Chinese drug lei-kungteng Triptery-gium wilfordii, Hook. I. Colouring matter and sugar, A., 1572.

Choucroun, N., surface electric charge of micro-organisms, A., 1027.

See also Guilliermond, A.

Chovanskaja, O. S., action of sulphuric acid on wool and conditions of scouring, B., 13.

See also Makovetzki, A. E.

Chovin, P. E. M., and Gion, L. P. R., apparatus for determination of the components of gaseous mixture, (P.), B., 1136.

Chow, B. F., distribution of precipitin in serum-globulins of different species, A., 1531. New preparation of typespecific polysaccharide from pneu-

mococcus, typo I., A., 1532. and Goebel, W. F., purification of anti-bodies in type I antipneumococcus serum; nature of the type-specific

precipitin reaction, A., 1136.

Chow, T. C., and Chao, K. J., intensity variations of mercury molecular spectra and the origin of the bands at 2482 A, A., 1168.

Chowdhury, J. K., and Bardhan, T. P., molecular size of cellulose from different sources. I. and II., A., 971, 1196.

Chowdhury, S. C., alkali soils, B., 33. Chramov, G. M. See Alexeevski, E. V.

Chrenova, M. See Dubinin, M.

Chrétien, A., and Hoffer, O., existence of two hydrates of potassium thiocyanate, A., 160.

and Varga, G., system stannic chloridehydrogen chloride, A., 290.

Chrisman, I., catalytic decomposition of ammonia, A., 1471.

Christ, K., flow method applied to space charge and ionic processes in oil, A., 271.

Christ, R. E. See Hurd, C. D.

Christen, C., and Virasoro, E., plant rennins; extraction and properties, B., 1124. See also Damianovich, H.

Christen, M. Sco Ritter, W.

Christensen, A. L. See Head, R. E. Christensen, B. E., and King, A. E., inorganic liquid mixture for temperature baths in the range 100-250°, A., 954.

Christensen, B. V., and Hocking, G. M., [pharmacognosy of] Lacinaria species, A., 634.

and McClean, A. P., bio-assay of Vera-

trum viride, B., 858. Christensen, C. W., and Armour & Co., [mono- or di-]glycerides, (P.), B., 1165. Mono- and di-glycerides, (P.), B.,

Christensen, E. H. See Dill, D. B.

Christensen, H. P., treatment of fatty animal raw material, particularly whale blubber, in pressure-steam digesters, (P.),

Christensen, L. M., alcohol-gasoline blends, B., 1076.

See also Brown, L. T., Bryner, L. C., Fulmer, E. I., Staveley, H. E., Under-

kofler, L. A., and Veldhuis, M. K.
Christensen, M. Sco Hodge, J. C.
Christensen, N. C., white-lead pigments,
(P.), B., 287. Treatment of zinc or copper] ores with sulphuric acid, (P.), B., 641. Pigments from lead ores, (P.), B., 652, 1109. Treatment of solids with gaseous media, (P.), B., 769.

Christian, W. See Lüttgens, W., and Warburg, O.

Christiani, A. von, chemistry of carcinoma. II., A., 1538.

Christiansen, J. A., extension of Arrhenius' conception of a chemical reaction, A., 1072.

Christiansen, W. G., Harris, S. E., and Squibb & Sons, E. R., hydroxydiphenyl intermediates, (P.), B., 684.

Jurist, A. E., Moness, E., and Squibb & Sons, E. R., preparation, packaging, and use of colloidal metallic bismuth, (P.), B., 253.

Moness, E., Harris, S. E., and Squibb & Sons, E. R., halogenated hydroxydiphenyls, (P.), B., 91. Devitalisation of pathogenic micro-organisms, (P.), B., 1131.

Sco also Braker, W., Grave, T. B., Harris, S. E., Jones, W. S., Lee, J., Lott, W. A., Moness, E., Nitardy, F. W., and Ort, J. M.

Christianson, R. Seo Koppers Co. of Delaware.

Christidis, B. G., cottonseed treatment with sulphuric acid, B., 1223.

Christman, C. C. See Wolfrom, M. L. Christmann, L. J., Falconer, S. A., and Amer. Cyanamid Co., flotation of oxides, (P.), B., 153.

Jayne, D. W., and Amer. Cyanamid Co., [collector for] flotation of ores, (P.), B., 238.

See also Amer. Cyanamid Co.

Christoforova, V. See Balarev, D. Christomanos, A. A., sulphur and glutathione content of the blood and tissues in experimental uræmia, A., 1016.

Christoph, W., photo-electric electron yield with counter tubes, A., 665. Sharpness of coincidence with counter tubes, A., 1181.

See also Scholder, R. Christopher, C. F. See Herty, C. H., jun. Christy, A., band spectrum of sulphur, A., 1039.

Christy, F. S. See Robinson, Richard. Christy, N. See Robinson, Richard. Chrome Alloys Manufacturing Co. See McFadgen, H. J.

Chrometzka, F. See Schittenhelm, A. Chromov, V. See Arzimovitsch, L. A. Chrysler Corporation. See McCortney, W.J. Chrzanowska, R. See Glixelli, S.

Chrzaszcz, T., and Janicki, J., action of proteases on protein of ungerminated cereals and on amylolytic activity, A., 245. Hydrogen sulphide as a factor in determination of free and bound amylase in ungerminated cereals, A., 520. Increase of active amylase in ungerminated cereals by hydrogen sulphide and papain, A., 1024.

Chrzaszez, T., and Janicki, J., amylase of rye during development and ripening, A., 1024. Amylase during growth and ripening of grains, A., 1150. Recent advances in the fermentation industries, B., 1227.

and Leonhard, K., production of citric acid from lactic acid and from alcohol,

A., 1558.

and Zakomorny, M., conversion of acctic into citric acid by moulds, A., 1026. Significance of malic acid in conversion of acetic to citric acid by moulds, A., 1027.

Chu, C. F. See Lee, C. U.

Chu, E. J. H. See Bachmann, W. E. Chu, H. I., Chou, S. K., Chen, K. C., Wang, S. H., Liu, S. H., and Hannon, R. R., calcium and phosphorus metabolism in osteomalacia. IV. Acute

parathyroid hormone poisoning, A., $\hat{6}27.$

See also Liu, S. H.

Ch'u, S. L., positive-ray analysis of ions from a high-frequency spark, A., 1171.

Chu, T. C. See Woo, S. C.
Chu, Y. L. See Chao, T. P.
Chuang, C. K., and Huang, Y. T., preparation of y-m-methoxyphenylbutyric acid, A., 984.

and Tien, Y. L., cis- and trans-1:3-diketodecahydronaphthalene, A., 336.

Tien, Y. L., and Ma, C. M., general methods of synthesis of poly-alicyclic a-ketones with angular methyl group, A., 988.

Chuck, F. Y., and Western Condensing Co., stabilisation of milk powder and similar colloidal products, (P.), B., 1126.

Chudakov, A. S. See Pamfilov, A. V. Chudoba, $K_{\cdot,i}$, zircon discoloured by sunlight

(hyacinthine), A., 1087. and Behmenburg, H., relation between morphology and structure of potassium sulphate, A., 1450.

Chueco, A., general narcosis with gases, cyclopropane, carbon dioxide, nitrous oxide, ethylene, and oxygen, A., 891.

Chugoku Toryo Kabushiki Kaisha, enclosure of natural history specimens and other solid objects in urea and similar resins, (P.), B., 1007. Chuinard, F.G. See Manville, I.A.Chumarov, V.J. See Jasiukevitsch, S.M.

Chung, H. L., resistance of Leishman-Donovan bodies to physical, chemical, and biological agents. I. Physical agents, A., 1559. See also Lee, C. M.

Church, H. F., and Daynes, H. A., properties of hard rubber. I. Plastic deformation, B., 419.

Church, J. M. See Brown, O. W. Church, J. W., McClure, R. R., and Pure Calcium Products Co., manufacture of an alkaline-earth carbonate of improved

colour, (P.), B., 1037. Churchill, H. V., Bridges, R. W., and Miller, A. L., determination of sodium in high aluminous material, A., 1352.

Chusid, I. E. See Karpuchin, P. P.

Chutoretzkaja, S. N. Sec Lebedev, S. V. Chvat, M. B. See Hoftman, M. V Chwala, A., production of printing inks

comprising dispersion of pigments in oils, (P.), B., 652.

Chyżewski, E., and Skapski, A., electrochemical behaviour of non-metallic inclusions in iron and its relation to corrosion, A., 162,

Ciaccio, C., and Ciaccio, I., determination of total creatine, A., 1038.

Ciaccio, I., creatine derivatives. I. Presence of creatinine in muscular tissue. II. Supposed creatine of the residue of nervous and muscular tissues extracted with acids. III. Phosphocreatine of the blood, A., 222, 1138. Lipins of leprous granuloma. I. Histo-chemistry. II. Chemistry, A., 1015. See also Ciaccio, C.

Cianci, V., fermentation of mannitol provoked by B. coli and B. lactis aërogenes,

A., 760.

Ciaranfi, E., determination of the respiratory quotient of tissues in Ringer's solution containing phosphate, A., 884. Degradation of butyric acid by surviving liver, A., 887.

Ciccone, A., ultra-violet bands of beryllium oxide. I. and II., A., 661, 1177.

Cichocka, J. See Giedroyć, W., Przylecki, S. J. von.

Cimerman, C., Frank, D., and Wenger, P., micro-determination of zinc by means of 8-hydroxyquinoline, A., 951.

and Rzymowska, C. J., micro-determination of potassium, A., 812.

and Wenger, P., volumetric microdetermination of zinc, A., 1352. See also Wenger, P

Cincinnati-Dayton-Indianopolis Club. treated tung oils, B., 648.

Cinecolor, Inc., colour photography and kinematography, (P.), B., 860.

See also Crespinel, W. T.
Cini, M., tests for "neutral" glass used for phials, B., 234. Using buffered solutions in testing neutrality of glass, B., 594.

Ciocalteu, V., and Tanasesco, G., determination of the tyrosine index of serum-

polypeptides, A., 1529.

Ciocca, B., derivatives of β -amino-a-hydroxy-a-phenylpropionic acid, A., 1377.

and Scattola, (Signa.) M., action of acetylene on ethyl acetoacetate in presence of moreury salts, A., 1249.

See also Contardi, A.
Cioffi, P. P., new high permeabilities in
hydrogen-treated iron, B., 104.

Cioglia, L., hormones of urine of pregnancy and cholesterolæmia, A., 1030. See also Peretti, G.

Cionga, E., acid ester contained in root of official valerian, A., 208.

Cioraneseu, E. See Nenitzescu, C. D. Cirelli, (Signa.) V. See Monti, (Signa.)

Cirg, J. See Fabrikant, V.A.

Circu, M., an anomaly in annealed copper, B., 1157.

Cirulis, A., condensation of indan-1:3dione with acetone, A., 853.

Cirves, F. J., bleaching of [wood] pulp, B., 980.

Cislak, F. E., and Reilly, P. C., preservation of vegetable fibre materials, (P.), B., 1203.

See also Derby, I.H.

Cismaru, D., determination of toluidines in aqueous solution, A., 91.

See also Angelescu, E.

City Auto Stamping Co. See Batten, H. M. Ciuca, M., Mesrobeanu, L., and Badenski, G., microbial variants of B. aërtrycke and possible variation in chemical constitution of its complete somatic antigen, A., 898.

Ciulla, U. See Aglialoro, M.

Ciusa, R., and Bellino, F., Doebner reaction.

XII., A., 1393. Brüll, L., and Ottolino, G., quinhydrones. II., A., 991.

Ciusa, W., wheat-germ oil, B., 67. Optical activity of unsaponifiable matter of olive oil. I., B., 241.

Claassen, A., raising the calorific value of

liquid fuel, (P.), B., 779. and Fleming, A. H., furfurol [furfuraldehydel from cellulose and cellulosecontaining materials, (P.), B., 634.

Claassen, H., improvement of circulation of after-product vacuum pans, B., 165. Molasses as an indicator of sugar-factory working conditions, B., 212. Origin of the oxalic acid present in [sugar-factory] evaporator scale, B., 1119. Compound evaporator, its theoretical basis and

practical design, B., 1183. Claborn, H. V. See Davis, A. C.

Claësson, H., L-series for uranium, A., 1438. Claes, (Mlle.) A. See Itterbeek, A. van.

Claeys, J., Errera, J., and Sack, H., absorption of ultrasonic waves in liquids, A., 787.

Claffey, L. W. See Bruun, J. H., and Hicks-Bruun, M. M.

Claflin, H. C., Hubbard, D. O., and Beryllium Corp., extraction of metal values from ores, (P.), B., 843.

Clague, J. A., microbiological examination of dried foods, B., 473.

Clair, E. See Colombier, L.

Clapham, P. A., treatment of gapeworm disease, A., 883.

Clapp, A. L., cooking utensil, (P.), B., 811. and Paprex Fibre Co., composition for germinating seeds, (P.), B., 294.

Clapsadle, L. J. See Carbide & Carbon Chem. Corp.

Clar, C. See Tramm, H.

Clar, E., benzanthrone derivatives. III. Autoxidisable dihydrobenzanthrone. IV. Now synthesis of benzanthrone derivatives, A., 75, 1380. Aromatic hydrocarbons. XX. Simple principle of the structure of aromatic hydrocarbons and their absorption spectra. XXI. Structure of pyrene according to the anellation process, A., 599, 1102.

See also Brass, K.

Clara, M., diazo-coupling reaction for detection of o- and p-phenols in histological technique, A., 535.

Claravall, S. See Hermano, A. J. Claraz, M. See Kling, A.

Clardy, L. See Whitman, J. L.

Clarens, J., and Lacroix, J., soils. XVI. Two soils from Indo-China; placeable acid radicals and formation of clay incorrectly called colloidal," B., 163.

and Margulis, H., reactions of phosphates with soils. II. Action of lime on monocalcium phosphate in presence of anhydrous calcium sulphate. III. Monocalcium hydrogen phosphate and calcium carbonate, alone or in presence of variable quantities of lime, A., 39, 946.

Clarenz, L. See Pfeiffer, G. Claret, R. J., and Natural By-Products Corp., carbon dioxide from flue gases, (P.), B., 407.

Clariana, S. See Jiménez Diaz, C. Clark, A. H., and Gershon, S., stability of sodium sulphite, B., 452.

Clark, A. J., resting metabolism of the frog ventricle; influence of depressants on rate of asphyxiation of frog ventricle, A., 1145.

Clark, A: M. See Imperial Chem. Industries.

Clark, A. R., test-tube flame test applied to the rarer elements, A., 1352. See also Hurd, L. C.

Clark, A. W., and Willits, C. O., reagent for potassium. I. Qualitative, A., 951. See also Sayre, C. B.

Clark, B. B., Gibson, R. B., and Paul, W. D., rôle of insulin in metabolism in non-diabetic patients. I. Transitory hyperglycemia and glycosuria following discontinuation of insulin,

and Greene, J. A., effect of low-carbohydrate diet on glucose tolerance in spontaneous hypoglycæmia, A., 887.

Clark, C. B., and Amer. Cyanamid & Chem. Corp., [dust removal from] gas [undergoing catalytic] treatment, (P.), B., Sulphuric acid, (P.), B., 592.

and Amer. Cyanamid Co., production of sulphuric acid by the contact process,

(P.), B., 1091. Clark, C. C., and Procter & Gamble Co., hydroxy-sulphonated fatty acid esters,

(P.), B., 1142. Clark, C. H. D., polarisation of hydrogen halides, A., 781. Spectroscopy and valency. IV. Periodic groups of hydride di-atoms, A., 781. Optical polarisation ellipsoids of the hydrogen

halide gases, A., 1051. and Humphries, E. C., Kerr constants of the hydrogen halide gases, A.,

and Stoves, J. L., spectroscopy and valency. V. Periodic functions of

hydride di-atoms, A., 782. Clark, C. L., Brown, R. S., and White, A. E., application of calorised refinery pipe-still tubes, B., 227.

Clark, C. W., and Keesom, W. H., heat capacity of gadolinium sulphate from 1.0° to 20.5° abs., A., 149.

Clark, D. A. R., tensile properties of steels at temperatures below and above normal,

Clark, E. P., occurrence of quebrachitol in stems of Haplophyton cimicidum, A., 1037. Helenalin. I. Helenalin, the bitter sternutative substance occurring in Helenium autumnale, A., 1514.

Clark, F. C., drying of paper, B., 57. and Atmospheric Nitrogen Corp., dispensing of measured quantities of liquefied gas, (P.), B., 963. Clark, F. M. See Gen. Electric Co.

Clark, G., and Clark, W., grinding, pulverising, and like treatment of materials, (P.), B., 304, 721.

Clark, G. F. See Braaten, E. O. Clark, G. L., and Beckwith, M. M., mathe-matical modulus derived from X-ray data for evaluation of residual dis-

tortion in crystals, A., 1053. and Smith, A. F., X-ray diffraction studies of chitin, chitosan, and derivatives, A., 1451.

See also Gring, J. L., and Sisson, W. A. Clark, H. C. See Komp, W. H. W.

Clark, H. E., effect of ammonium- and of nitrate-nitrogen on the composition of the tomato plant, A., 1432. See also Vickery, H. B.

Clark, H. M., prepubertal reversal of the sex difference in the gonadotropic hormone content of the pituitary gland of the rat, A., 388. Sex difference in change of potency of the anterior pituitary following bilateral castration in newborn rats, A., 388. Clark, J. d'A., burst, tensile, and stretch

tests [for paper], B., 186. and Hazmburg, R. S. von, kollergang beating method for pulp evaluation,

Clark, J. H., denaturation of ovalbumin by ultra-violet radiation, A., 227. Effect of ultra-violet radiation on lens protein in the presence of salts and relation of radiation to industrial and senile cataract, A., 514. Sco also Rowntree, L. G.

Clark, J. M., jun. See Rhodes, F. H. Clark, J. W. See Busch, K. G. A. Clark, L. B., Leonard, S. L., and Bump, G.,

light and reproduction in game birds, A., 756.

Clark, L. H., Worster, F. J., and Sharples Solvent Corp., aliphatic alcohols, (P.), B., 919.

Clark, L. M., reactivity of the imino-group in 1-imino-2-methylbenzthiazoline, A.,

Clark, L. T. See Parke, Davis & Co.

Clark, N. A., and Sieling, D. H., determination of iron in humates; use of iodohydroxyquinolinesulphonic acid, B.,

Clark, O. W., dyeing of linen fabrics with fast colours, B., 831.

Clark, Q. L., and Reynolds, D. H., quantitative analysis of mine dusts; X-ray diffraction method, B., 253.

Clark, R. E. D., detection and colorimetric determination of tin by means of substituted 1:2-dithiolbenzenes; a specific reagent for tin, A., 696. Preparation of substituted benzene-o-dithiols for use as specific reagents for tin, A., 840. Rapid detection of silver halido in presence of silver cyanide, A., 1082.

Sco also Mills, W. H.
Clark, R. H. Sco Bell, A.
Clark, R. W., daturic acid, A., 125.
Clark, W. Seo Clark, G.
Clark, W. G., and Feitshans, F. R., ore concentration, (P.), B., 329.

Clark, W.J. See Imperial Chem. Industries. Clark, W. M. See Hoffstadt, R. E.

Clarke, B. L., and Hermance, H. W., apparatus for micro-electrolysis of large volumes of solution, A., 814.

Clarke, C. Sco Burgess, Ledward & Co. Clarke, G. E., and Marsh, H. F., rate of bismuth absorption in experimental animals following oral administration, A., 1412.

Clarke, G. L. Sco Gellis, S. S. Clarke, H. T. Sco Borek, E.

Clarke, H. W., and Aitchison, L., aluminium alloys, (P.), B., 554.

Clarke, L. A. See Texas Co. Clarke, M. F., Bassin, A. L., and Smith, A. H., skeletal changes in rats induced by a diet extremely poor in inorganic salts, A., 1413.

and Smith, A. H., effects of a diet poor in salts on growth and composition of the incisors of the rat, A., 233.

Clarke, S. C. See Bickford, C. A. Clarke, S. G., use of inhibitors (with special reference to antimony) in selective removal of metallic coatings and rust, B., 502.

Clarkson, R. G. See Du Pont de Nemours

Clarvoe, G. W., and Johns-Manville Corp., composition of matter [anti-caking aqueous polish], (P.), B., 695.

Clary, D. H. See Smith, P. D. Clash, R. F., jun. See McKeehan, L. W. Classey, L., and Aplin & Barrett, cheese preparations, (P.), B., 218.

Clauberg, A., and Behmenburg, P., determination of tungsten and silicon in highand low-alloy steels by means of perchloric acid, B., 457.

Clauberg, C., and Breipohl, W., follicular and luteal hormones and their reaction on the anterior lobe of the pituitary, A., 389.

Claude, Albert, spreading properties of azoproteins in the dermis, A., 1138.

Claude, André, electric gaseous-discharge tube, (P.), B., 157.
Claude, G., presence of gold in sea-water,

A., 957.

Claude Neon Lights, Inc. See Beck, L. L. Clauder, O. See Szebellédy, L.

Claus, B., highly disperse states, A., 425. Atomising apparatus, A., 815. Production of photographic silver halidegelatin emulsions, B., 909.

Claus, Walter. See Zellstoff-fabr. Waldhof. Claus, Willi, zinc-base alloys, B., 198. Lead bronzes, B., 889.

[with Weidner, R.], zinc dic-casting alloys containing aluminium, B., 889. See also Guertler, W.

Clausen, F. W. See Freudenberger, C. B. Clausen, J. F. See Waterman, H. I.

Clausen, S. W., and McCoord, A. determination of carotene and xanthophyll by a single distribution between liquid phases, A., 493.

Clauser, H., pyrotechnic device, (P.), B., 300.

Clauser, H. C. See Decker, J. B. Clausing, P. See De Boer, J. H.

Claussen, E., jun. See Kiehl, S. J. Clavera, J. M., and Moreno Martín, F., micro-determination of fats in human milk, A., 1012. Accurate pyknometer, A., 1225. Influence of methyl alcohol in determination of higher alcohols in spirits, B., 902.

Clawson, A.B., Couch, J.F., and Bunyea, H., toxicity of sodium cyanide and efficiency of the nitrite-thiosulphate combination as a remedy for poisoned animals, A., 377.

Claxton, \acute{E} ., \acute{B} are, M. K., and Armstrong Cork Co., composition tile, (P.), B., 1008. Claxton, G. See Hoffert, W. H.

Clay, J., decrease of primary cosmic radiation in different materials, A., 773. Range of a single shower particle produced by cosmic rays in lead, iron, and aluminium, A., 774.

Bruins, E. M., and Wiersma, J. T., temporary excess of 10% in the cosmic radiation, A., 1441.

and Gemert, A. van, soft primary corpuscular radiation as a shower producer, A., 1174. and Loeff, M. R. van der, results of the

Dutch cosmic-ray expedition 1933. IX. Ionisation balance for cosmic rays on the ocean, A., 1175.

Clay, V. See Eaton, A. G.

Clayson, D. H. F., effect of colour and nature of light transmitted by wrapping materials on bacterial and mould growth [in foods], B., 1015.

Clayton, B., Burns, R. E., and Refining Inc., soap, (P.), B., 1004. Apparatus

for producing soap, (P.), B., 1107. Clayton, E., use of methyl green for detecting traces of alkali in fibrous materials, B., 17. Potential reducing properties of wool. I. Behaviour of wool in presence of water and alkaline liquids; sulphur groups in wool, B., 448.

Clayton, J. S. See Stevenson, T. M. Clayton, L. J., continuous vulcanisation

of rubber goods, (P.), B., 804.
Clayton, T. See Connor, R.
Clayton, W., solid-liquid interface, A.,

See also Crosse & Blackwell, Ltd. Clayton, W. R. See Townend, R. V. Cleaveland, J. B., waterproofing composi-

tion, (P.), B., 1008. Cleaves, A. P., and Edwards, C. W., photography of the third harmonic of hydrogen chloride, A., 136.

Cleaves, H. E. See Thompson, J. G.Cleevely, H., apparatus for diluting gas,

(P.), B., 353. Cleghorn, R. A., and McVicar, G. A., high-potassium diet and survival of adrenalectomised rats, A., 1147.

Clément, H., organo-magnesium derivative of pentamethylbenzene, A., 852. Clement, T. W. Soo Markley, J. W.

Clementi, A., emetic action of lobelanine and lobelanidine, A., 892. Biochemical properties of bile-pigments. VI. Insolubility of calcium, barium, and strontium salts of bilirubin and biliverdin VII. Anti-coagulating power in vitro of bilirubin, biliverdin, bile, and biliary salts, A., 1013.

Clements, F. E. Seo Martin, E. V. Clemo, G. R., and Hook, W., synthesis of substituted acridines as possible antimalarials, A., 864.

and Mellwain, H., phenazine series. III. Isomeric octahydrophenazines, A.,

MeIlwain, H., and Morgan, W. McG., synthesis of α-picolylisoquinolines as possible antimalarials. I., A., 866.

and McQuillen, A., molecular dissymmetry due to symmetrically placed hydrogen and deuterium. I. Resolution of a-pentadeuterophenylbenzylamine, A., 977.

and Metcalfe, T. P., lupin alkaloids. IX. Synthesis of 5:5'-dimethyldi(1:2) pyrrolidine, A., 870.

Metcalfe, T. P. and Raper, R., lupin alkaloids. XI. Octahydropyridocolinc-norlupinano relationship, A., 1526.

Morgan, W. McG., and Raper, R., lupin alkaloids. VIII. X. Synthesis of dloxysparteine, A., 216, 1130. Occurrence of solanidino in sprouting

potatoes, A., 1395. Clendenin, E. H. See Standard Oil Development Co.

Clenshaw, W. J. See Gough, H. J. Clergeot, A., electric furnace for heat-treatment of ferrous and non-ferrous metals, B., 417.

Clerget, P. See Aubert, M.

Clerici, A. S. Sco Antoniani, C.

Cleve, N. van, and Morgan, A. F., effect of diet on blood-phosphorus partition of rats with or without insulin, A., 876.

Cleveland, C. R., oils for codling-moth control, B., 613.

Cleveland, D. A., effect of ergotamine on glycosuria and hyperglycamia produced by stimulation of the superior cervical

sympathetic ganglion, A., 516. Cleveland Cliffs Iron Co. See Olson, $E.\ T.$ Cleveland Graphite Bronze Co., composite metal [steel-brass] strips, (P.), B., 377. Bimetallic strip, (P.), B., 503. Com-posite metal strip [for journal bearings], (P.), B., 601.

Cleveland Twist Drill Co. See Emmons,

Clevenger, J. F., volatile oils in mace and nutmegs, B., 171.

Clevinger, C. B., and Willis, L. G., immediate effects of fertilisation on soil reaction, B., 466.

Clewell, J. H., Wemple, F. V., and Du Pont Viscoloid Co., removal of solvent from cellulosic plastics, (P.), B., 1111. Clews, C. J. B., specific heats of aqueous solutions of potassium chloride, A., 429.

Clews, F. H., Booth, H., and Green, A. T., refractoriness-under-load test. Effect of variation in height of testpiece. III. Maintained-temperature test, B., 60. Jointing cements. IV. Certain mixtures of possible application as jointing cements for firebrick, B., 60.

Chadeyron, A., and Green, A. T., action of alkalis on refractory materials. IV. Action of potassium chloride vapour on refractory materials at 1000° in presence of water vapour and air, B., 60.

and Green, A. T., high-porosity silica bricks. II., B., 60. Behaviour of sillimanite mixes on being pressed, B., 60. Research and refractory materials, 1933-34, B., 60. Refractoriness and its determination, B., 497. Grading, porosity, and permeability to air of silica bricks, B., 498.

See also Green, A. T. Clifford, A. M., and Wingfoot Corp., rubber composition and method of preserving rubber, (P.), B., 1113.

Clifford, I. L. See Imperial Chem. Industries.

Clifford, P. A., and Wichmann, H. J., dithizone method for determination of

lead, A., 443. Clifford, P. C., and Crespo y Garcia, J., biophysical process for preserving and conserving fermentable liquids, (P.),

Clifford, W., and Windridge, M. E., experiments with model [sewage-settlement] tanks, B., 301.

Climax Molybdenum Co., and Herzig, A.J., molybdenum-alloy steels, (P.), B., 1101.

and Loeb, C. M., jun., [white cast-iron]

alloys, (P.), B., 459. Climenko, D. R., influence of magnesium oxide on antipyretic action and toxicity of aspirin in rabbits, A., 1550.

Cline, J. E. See Bent, H. E. Cline, J. K., and Merck & Co., choline esters and their salts, (P.), B., 907. Acetylcholine acetate, (P.), B., 1129. See Major, R. T., and Williams, R. R.

Cline, M., and Internat. Paper Co., deodorant, (P.), B., 1070.

Clinton Corn Syrup Refining Co. See Corson, G. E.

Clitherow, W. B. See Pilkington Bros., Ltd. Cloer, V. U. See Sims, W. F.

Cloetens, R., action of a-particles on mixtures of nitrogen and oxygen, A., 688. See also Capron, P. C.

Cloke, J. B. See Murray, J. V.Closmann, E. A., Vorsatz, F., Kasper, K. A., and Commerzinag A.-G., treatment of coffee beans by steam, (P.), B.,

Closson. See Brigando, J. Clow, A. See Gray, F. W. Clowes, G. H. A. See Chen, K. K., and Krahl, M. E.

Clulow, F. S. See Shell Development Co. Clusius, K., atomic heats and heats of fusion of neon, argon, and krypton,

and Bartholomé, E., entropy of deuterium, A., 148. Calorimetric and thermal properties of condensed deuterium, A., 149. Heat of evaporation of deuterium, A., 673.

and Frank, A., rotation and entropy of hydrogen sulphide, A., 278.

and Goldmann, J., atomic heat of nickel at low temperatures, A., 417.

and Gutschmidt, H., lecture experiment in combustion chemistry, A., 1086. Flames of light and heavy hydrogen, A., 1208.

See also Gutschmidt, H.

Clutterbuck, P. W., biochemistry of moulds, A., 639.

Cluzel, J. See Cathala, J.

Coal Process Corporation. See Wisner, C. B.

Coast Mining Co. See Locke, F. W. Coates, C. W. See Weisman, A. I.

Coates, J. E., and Taylor, E. G., hydrogen cyanide. VIII. Conductivity of electrolytes in anhydrous hydrogen cyanide. IX. Conductivity of electrolytes in anhydrous hydrogen cyanide: some ammonium and tetra-alkylammonium salts at 18°, A., 1341, 1465.

Coats, R. R., primary banding in basic plutonic rocks, A., 1087. Aguilarite from the Comstock Lode, Virginia City, Nevada, A., 1483.

Cobb, D. M. See Fenn, W. O.

Cobb, J. F., dry kiln, (P.), B., 431. Cobb, J. W., furnace atmospheres and their effects, B., 719.

See also Millett, H. C., and Roberts, A.L.

Coblans, H. See Schwartz, E. Coblentz, W. W., and Stair, R., standard

source of ultra-violet radiation for calibrating photo-electric dosage intensity meters, A., 581. Evaluation of ultra-violet solar radiation of shortwave lengths, A., 655. Distribution of energy in the extreme ultra-violet of the solar spectrum, A., 1310. See also Stair, R.

Cobler, H. See Butenandt, A.

Cochran, P. B. See Du Pont de Nemours & Co., E. I.

Cochrane, J. D., jun., and Formica Insulation Co., synthetic-resin product, (1.), B., 464. Laminated product, (P.), B., 464.

Cochrane, W., Kikuchi lines from etched copper crystal, A., 1055. Structure of metallic deposits on a copper single crystal as determined by electron diffraction, A., 1327.

Cockbain, E. G. See Calvin, M. Cockcroft, J. D., superconductivity and low-temperature phenomena, otherA., 147.

and Lewis, W. B., high-velocity positive ions. V. Disintegration of boron. VI. Disintegration of carbon, nitrogen, and oxygen by deuterons, A., 773.

Cocker, W., by-products of thiolbenzthiazolo synthesis, A., 1274. Sec also Cocker, W. W.

Cocker, W. W., and Cocker, W., vulcanisation of rubber, (P.), B., 946.

Cockerille, F. O. See Reid, E. E. Cocking, T. T., determination of p_H , A., 949. Determination of p_H of natural waters and solutions, A., 1218.

and Middleton, G., determination of the essential oil content of drugs, B.,

Cockrill, J. R., Miller, E. G., jun., and Kurzrok, R., substanco in human seminal fluid affecting uterine muscle, A., 227.

Cocksedge, H. E. See Imperial Chem. Industries.

Codwise, P. W., water-resistance of paper, B., 268.

Coe, G. D. Seo O'Meara, R. G.

Coe, M. R., curing and preserving plant products [tobacco or hops], (P.), B., 294. Photochemical studies of rancidity: induction period of protected and nonprotected oils, B., 1054.

Coenen, E. J. B., jun., furnaces for solid fuels, (P.), B., 1023.

Coenen, P. A., and Kramers, H. A., intensity distribution in diffuse series of potassium, A., 769.

Cocterier, F., gyromagnetic effect in pyrrhotine, A., 1452.
Coeur, A. See Mouriquand, G.

Coffex Akt.-Ges. See MacLang, J.

Coffey, D. H., Heilbron, I. M., and Spring, F. S., sterol group. XXIII. Location of the ethenoid linkage of a-dihydrofucosterol and the identity of sitostanol, fucostanol, stigmastanol, and ostreastanol, A., 981.

Coffey, J. H., rubber articles and compositions therefor, (P.), B., 946.

Coffey, S., Thomson, J. K., and Wilson, F.J., ethyl esters of β -arylaminocrotonic

acids, A., 978. Coffin, C. C., explosive antimony. II. Structure, electrical conductivity, and rate of crystallisation. III. Magnetic

susceptibility, A., 145, 416.
Coffman, E. B. See Gardner, F. D.
Cofrancesco, A. J. See Hill, G. A.
Coggeshall, E. J. See Ilsley, L. C.

Coghill, J., pulp testing by a rapid sheet-

making process, B., 364.
Coghill, R. D., spontaneous decomposition of cystine dimethyl ether, A., 973.

Cogno, G., waterproof textile material, (P.), B., 493.

Cohen, A., synthesis in the sex hormone group, A., 71.

and Cook, J. W., substituted unsaturated cyclic ketones, A., 75.

Cook, J. W., and Hewett, C. L., compounds related to the sterols, bile acids, and cestrus-producing hormones. VII. and IX., A., 62, 326.

See Brues, A. M., and Reichstein, T. Cohen, B., and Mack, P. B., effect of dry-cleaning and of water-washing on strength of unweighted and of tinweighted silks. V. Effect of waterwashing, B., 828.

Cohen, C. See Dean, H. T.

Cohen, E., and Blekkingh, J. J. A., jun., influence of degree of dispersion on physico-chemical constants. IV., A., 20, 149.

and Bredée, H. L., negative expansion coefficient of silver iodide, A., 674.

Cohen, E., and Cohen-de-Meester, W. A. T., corrosion, B., 599.

and Lieshout, A. K. W. A. van, influence of mechanical deformation on transformation velocity of polymorphic metals. II. Influence of metallic impurities, A., 672. Electrical pressure dilatometer, A., 956. Rate of poly-morphic transformations. IV. Inmorphic transformations. fluence of mechanical deformation on rate of transformation of polymorphic metals. II. Influence of admixed metals, A., 1452.

Cohen, F. H., objective method for fluorescence determination, with special application to determination of vitamin-

 B_2 , A., 390.

Cohen, H., and Perfection Steel Body Co., finishes imitative of stone, (P.), B., 287. Cohen, H. C., iodine values of La Plata linseed oil; stand oil, B., 648.

Cohen, J. See Sobel, A. E.

Cohen, L., insulating material for cables, gas-pipes, and water-pipes, etc., (P.), B., 747.

Cohen, M., Newell, J. M., and Killian, J. A., swelling of the vitreous gel and intraocular pressure, A., 1535.

Cohen, M. U., precision lattice constants from X-ray powder photographs, A.,

See also Walden, G. H., jun.

Cohen, P. P. See Hurd, L. C. Cohen, R., histochemical study of gold depôts in cells, A., 1147.

Cohen, Stuart, and Oesper, R. E., preparation of naphthidine, A., 1103, 1353.

Cohen, Sumner. See Worrall, D. E. Cohen, S. A. See Grosh, E. B.

Cohen, S. L., and Marrian, G. F., isolation and identification of combined cestriol in human pregnancy urine, A., 503. Cohen, V. W. See Goldsmith, H. H. Cohen, W. D. See Böeseken, J.

Cohen, W. E., analysis of preservativetreated timbers. I. Determination of arsenic, B., 499. Chemistry of Australian timbers. V. Lignin determination. III., B., 791.

Cohen-de-Meester, W.A.T. See Cohen, E. Cohn, A.E., and Steele, J.M., effect of frequency of contraction of the isolated mammalian heart on consumption of oxygen, A., 508.

Cohn, E. J. See Daniel, J.

Cohn, E. W., and Brookes, M. H., diastatic

activity of rat saliva, A., 880.

Cohn, H., and Siebert, C., obtaining a highly swellable body from [wool] waxes, (P.), B., 204.

Coile, T. S., soil sampler, B., 1170.

Cola, G., determination of sulphur in the extract of the silk-rind of cocoons, A., 1403.

Colas Products, Ltd., Gabriel, L. G., and Blott, J. F. T., bitumen dispossions, (P.), B., 357.

Colburn, A. P., effect of entrainment on plate efficiency in distillation, B., 671.

Colburn, E. A., jun., and Denver Patent Co., mixing apparatus [flotation cell], (P.), B., 256.

Colby, B. W. See Fiske, A. H. Colclough, T. P. See Brassert & Co., Ltd., H. A. Cold Metal Process Co., sheets of iron-

silicon alloys, (P.), B., 604*.

Cole, A. F. W., and Gordon, A. R., diffusion of copper sulphate in aqueous solutions of sulphuric acid, A., 1197.

Cole, A. P., apparatus for determining curd character of milk, B., 250.

Cole, C. E. See Read, F. M.

Cole, E. C., methylene-blue technique for permanent preparations, A., 913.

Cole, Gordon M., Hall, H. W., and California Fruit Growers' Exchange, disposal

of industrial wastes, (P.), B., 126.
Cole, Guy M. See Phillips, W. M.
Cole, H. A. See McMillan, W. A.

Cole, H. H., and Goss, H., gonad-stimulating substance, (P.), B., 620.

and Hart, G. H., gonad-stimulating substance, (P.), B., 299.

See also Catchpole, H. R., and Saunders,

Cole, H. W., McLaren, M. W., and Internat. Carbonic Eng. Co., gas-solidifying apparatus, (P.), B., 964. See also Vosburgh, C. H.

Cole, J. E. See Du Pont de Nemours & Co., E. I.

Cole, J. R. See Smith, C. L.

Cole, R. C., and Edlefsen, N. E., sedimentation tube for analysing water-stable soil aggregates, B., 164.

See also Edlefsen, N. E.

Cole, V. V., and Curtis, G. M., human iodine balance, A., 512. Iodine metabolism of the adult rat in relation to trauma, thyroid activity, and diet, A., 631.

See also Enright, L.

Cole, W. See Julian, P. L. Cole, IV. C. See Varney, R. N.

Colehour, J. K. See Hurd, L. C.
Coleman, A. L. See Cook, Warren A.

Coleman, C., and U.S. Rubber Co., treat-

ment of rubber, (P.), B., 112. Arylaminomethyl [benz]thiazyl sulphides [vulcanisation accelerators], (P.), B., 849.

See also U.S. Rubber Co.

Coleman, D. A., standardisation of methods for brewing and malting control, B.,

and Snider, S. R., determination of moisture in barley malt, B., 213 Coleman, G. H., and Craig, D., dibutyl-

carbinol, A., 589.

and Forrester, R. A., rearrangement reactions of monochloroamine and Grignard reagents, A., 319.

Peterson, R. L., and Goheen, G. E., reaction of halogenoamines with ketcns, A., 1495.

See also Dow Chem. Co.

Coleman, J. D., jun. See Eastman Kodak Co. Coleman, J. H., Jaffa, N. E., and Warner Chem. Co., recovering lithium compounds, (P.), B., 1037.
Coleman, J. P. D., Grene, G. H. S., and

Wild-Barfield Electric Furnaces, [lifting of] lids for furnaces, ovens, etc., (P.), B. 1025.

Coleman, R. L., effect of soldering and other heat treatment on orthodontic alloys, B., 745.

Coleman, R. N. See Prideaux, E. B. R. Coleman, W. C., and McCrosky, C. R., determination of selenium in steel, B.,

Coles, A. C., staining and microscopical demonstration of filterable viruses, A., 525.

Coles, H. W., and Lott, W. A., local anæsthetics containing the ac-tetrahydro-β-naphthylamine pressor group, A., 1501.

See also Shonle, H. A.

Colgate, D. V., viscosity of liquid metals, A., 674.

Colin, H., inulinogenesis in the Composita, A., 533. Alkalinity of ash of sugar and of fodder beets, B., 388.

and Belval, H., sugars of flour and dough, B., 40.

and Chaudun, (Mlle.) A., diastatic decomposition of intercellular cement, A., 911.

and Simon, M., content and alkalinity of ash of beetroot, A., 1165.

Colin-Russ, A., human foot perspiration; nature and inter-reactions with footwear, A., 882. Apparatus for determination and further study of fat, water-soluble matter, and acidity in leather and other porous materials, B., 804. Estimation of acidity in [vegetable-tanned] leather, B., 849.

Colla, C. See Ferrari, A.

Collander, R., cell sap of Characew, A.,

Collari, N., distribution of phosphorus between metal and slag in puddled iron, B., 63.

Collatz, H., hydrazine compounds of d-galacturonic acid and isolation of crystalline d-galacturonic acid from tobacco, A., 591.

Collazo, J. A., and Almela, J., insulin and blood-lactic acid, A., 902.

Barbudo, J., and Torres, I., chemistry of muscle in progressive muscular dystrophy; analysis of biopsy samples from the deltoid, A., 1407.

and Marti, F. B., folliculin and carbo-

hydrate metabolism, A., 901.

Collazo, S. A. See Maranon, G. Colledge, E. W. See De Ong, E. R. Colledge, Inc., E. W. See Omansky, M.

Collet, A. See Feitknecht, W. Collet, P. See Arloing, F.

Collett, A. R. See Ashburn, H. V. Collie, B. See Hartley, G. S.

Collie, C. H., absorption of slow neutrons, A., 658.

and Griffiths, J. H. E., passage of neutrons through matter, A., 1173.

Collier, H., methylene dichloride intoxication in industry, B., 430.

Collier, H. B. See Chang, Y. T.

Collier, S., and Johns-Manville Corp., friction material, (P.), B., 82.

Collier, V., jun., manipulator for glass blowing, A., 956. Determination of chlorides in biological materials, A., 1308.

Collier, W. A., and Krause, M., chemotherapeutic activity of compounds of arsenic with albumin breakdown products rich in sulphur, A., 515, 1029.

Collignon, E. See Falconer, R. Collin, A. See Rupe, H.

Collin Akt.-Ges., \bar{F} . J., distillation ovens and retorts, (P.), B., 403.

Collings, H. K. See Tomlinson, G. H.
Collings, F. J. See Courtaulds, Ltd.
Collings, W. R. See Dow Chem. Co.
Collins, A. M. See Du Pont de Nemours &

Co., E. I.

Collins, D. A., phenolsulphonephthalein renal function test in dogs, A., 1406.

Collins, E. M., and Menzies, A. W. C., comparative method for measuring aqueous vapour and dissociation pressures, with some applications, A., 698.

Collins, F. J. E. See Francis, F. Collins, F. L., and Oseland, C., apparatus for measuring high temperatures, (P.),

B., 959. Collins, G. See Price, W. C. Collins, G. N., and Maxwell, L. R., delayed killing of maize seedlings with X-rays, A., 1165.

Collins, J.O. See Holmes, A.

Collins, P. F., and Columbus Dental Manufg. Co., dental investment composition, (P.), B., 647.
Collin, J. B., diabetogenic, thyrotropic,

adrenotropic, and parathyrotropic factors of the pituitary, A., 643. Interrelationships among urinary, pituitary, and placental gonadotropic factors, A., 762.

See also McEuen, C. S., Pugsley, L. I.,

and Selye, H.

Collison, R. C., lysimeter investigations.
IV. Water movement, soil temperatures, and root activity under apple trees, B., 384.

and Anderson, L. C., fertiliser experiments in the Morganthau orchard: six years' results with nineteen treat-

ments, B., 611.

Collord, G. L., pigment product, (P.), B.,

Colloseus, H., primary [Leclanché] coll, (P.), B., 282.

Collot, A. M., and Rabaté, J., existence of d-catechin in bark of the peach tree, A., 651.

Colombi, V., and Porta, V., pituitary hormones in cerebrospinal fluid, A., 1157.

Colombier, L., and Clair, E., determination of alcohol content of wines, B., 1122.

Colombies, F. H. See Aujaleu, E.

Colombo, G., count of thread by the Viviani method, B., 56. Detection of an artificially yellow-coloured white silk, B., 1084.

Columbus Dental Manufacturing Co. See

Collins, P. F.

Colonge, J., use of wetting and emulsifying agents [in facilitating reactions], A., 587. Action of mixed organomagnesium compounds on aliphatic a-ethylenic ketones. II., A., 591. Chloromethylation of ketones and preparation of a-alkylvinyl ketones, A., 1490.

Colonna, M., nitrogenous substances analogous to terphenyl [2:5-diphenylpyrid-

ines], A., 1520.

Colony, M. W., and Petroleum Conversion Corp., conversion of hydrocarbons, (P.),

Colony, R. J., and Mayerhoff, H. A., magnetite deposit near Humacao, Puerto Rico, A., 1228.
Colony, R. T., Schiller structure, A.,

Coltof, W. See Waterman, H. I. Colton, J. H., and Lang, A. G., drying of materials, (P.), B., 48.

Columbia Naval Stores Co. of Delaware. See Morton, A. A.

Combs, W. B. See Harvey, R. B., and

Trelogan, H. C.Combustion Utilities Corporation. Bhagwat, M. R., Burke, S. P., Johnson,

Alfred, and Klees, A. L. Comhaire, (Mlle.). See Garot, L.

Commercial Milling Co. See Fisher, P. K.

Commercial Solvents Corporation, ketones

from alcohols, (P.), B., 89.
and Arzberger, C. F., production of
butyl alcohol by fermentation, (P.), B., 951.

Legg, D. A., and Stiles, H. R., production of butyl alcohol [by fermentation], (P.), B., 72.

Commercial Solvents Corporation, Woodruff, J. C., Stiles, H. R., and Legg, D. A., production of butyl alcohol [by

fermentation], (P.), B., 72.
See also Arzberger, C. F., Bannister,
W. J., Bogin, C., Burke, D. J., Irey,
K. M., Legg, D. A., McCutchan,
W. N., Stiles, H. R., and Swallen, L. C.

Commerzinag Akt.-Ges. See Closmann, E. A.

Common, R. H., mineral metabolism of pullets. II., A., 371. Serum-phosphatase in the domestic fowl, A., 1153.

Commons, C. H., jun. See Kinzie, C. J. Compagnie de Bethune, hydrogenation of coal and other carbonaceous compounds, (P.), B., 1031.

Comp. Générale d'Electricité, [armoured] electric accumulators, (P.), B., 26. Electric-cable dielectrics, (P.), B., 1104. Separators for electric accumulators, (P.), B., 1214.

Comp. Gén. d'Electrométallurgie, Verein. Deuts. Metallwerke Akt.-Ges., and Lepp. H., improving physical and mechanical properties of metals and alloys, (P.), B., 330.

Comp. Industrielle & Minière du Nord & des Alpes, apparatus for melting and spreading tar, pitch, bitumen, or other hydrocarbons of the heavy kind, (P.),

Comp. Internationale des Cuirs Comprimés Attila C.I.C.C.A. Société Anonyme, recon-

stituted compressed leather, (P.), B., 707. Comp. Internat. pour la Fabrication Mécanique du Verre (Procédés Libby-Owens) Société Anonyme, furnaces for melting glass, (P.), B., 147.

Comp. Internat. de Produits Ignifuges & Calorifuges, improving fireproofing, heatinsulating, and other properties of products having a base of asbestos or other magnesium silicates, (P.), B.,

Comp. des Mines de Vicoigne, Noeux, & Drocourt, conversion of solid carbonaccous materials into liquid hydrocarbons by hydrogenation under pressure and in presence of catalysts, (P.), B., 731.

Comp. Nationale de Matières Colorantes & Manufactures de Produits Chimiques du Nord Réunies Établissements Kuhlmann, removal of incrustation from boilers, (P.), B., 304. Azo-dyes capable of forming metal compounds, (P.), B., 781. [Azo-] dyes containing chromium, (P.), B., 877. Wetting, emulsifying, dispersing, and cleansing agents, (P.), B., 973. Regeneration of phosphoric acid pickling baths, (P.), B., 1046.

Comp. de Produits Chimiques & Electrométallurgiques Alais, Froges & Camar-gue, metallic beryllium and its alloys, (P.), B., 331.

Comp. Réunies des Glaces & Verres Spéciaux du Nord de la France, apparatus for tempering glass, (P.), B., 234.

Compere, A., action of organo-magnesium compounds on adiponitrile, A., 76.

Compere, E. L., Porter, T. E., and Roberts, L. J., antirachitic values of irradiated yeast and of cod-liver oil, A., 1568.

Compton, J., Greig, (Miss) M., and Hibbert, H., lignin and related compounds. XXII. Fractionation of methanollignin, A., 995.

Sce also Levene, P. A. Compton, K. T. See Lamar, E. S. Comstock, G. F., and Titanium Alloy Manufg. Co., molybdenum-titanium ferro-alloys, (P.), B., 937.

Comstock, G. J., and Firth-Sterling Steel Co., hard cemented carbide materials, (P.), B., 154, 331.

Comstock, J. A., continuous carburising of [steel] screws with city gas, B., 838.

Comsia, O. See Zolog, M. Comte, sodium bicarbonate-copper [sul-

phate] sprays for mildew control, B., 423. Conacher, H. R. J., native hydrocarbons associated with oil shales of the Lothians, A., 450.

Condit, D. D., oil possibilities in Northwest District, Western Australia, B., 306.

Condon, E. U., electron-neutron inter-

action, A., 543. and Breit, G., energy distribution of neutrons slowed by elastic impacts, A., 402.

See also Breit, G.

Cone, C. N., Brown, E. D., and Glidden Co., coating of paper, (P.), B., 589. See also Davidson, G.

Cone, E. F., brass and copper forgings; their manufacture, properties, and uses, B., 278.

Cone, W. E., and Chadder, W. J., production and treatment of road tar in Great Britain, B., 726.

Coneen, J. F., burnishing procedure, B., 1094. Congdon, J. V. See Edwards, M. C.

Congoleum-Nairn, Inc., treatment of drying or semi-drying oils to produce substances for use in paint, enamel, lacquer, or similar protective coating compositions, (P.), B., 655*. Protective coating compositions, (P.), B., 655*. Mouldable compositions and manufacture of linoleum, etc., (P.), B., 1111.

See also Bonney, R. D.

Conklin, M. E., root-nodule organisms of certain wild legumes, B., 515.

Conklin, R. E., permeability of frog capillaries to protein, A., 233.

Conley, J. E., and Partridge, E. P., anhydrous sodium sulphate from saline deposits or brines by a four-stage process, B., 493.

Conlin, A., detection of adulteration in maple syrup, B., 118.

Conn, A. L. See Adams, F. W.

Conn, G. K. T. See Sutherland, G. B. B. M. Conn, W. R., and Lindwall, H. G., oxindole amines from isatin, A., 1122.

Conn, W. T., preservation of cellulose material, (P.), B., 1090. Protective reagent for cellulose material, (P.), B., 1090.

Connell, G. A., and Pacific Coast Borax Co., potassium sulphate, (P.), B., 833.

Connell, G. P. See Gilmore, R. E. Conner, R. T., and Sherman, H. C., protein intake in relation to growth and rate of calcification, A., 1543.

Conner, S. D. See Enfield, G. H.

Connolly, G. C., Pierce, J. A., and Hockley,

C. F., catalytic masses, (P.), B., 368, 453. [Catalytic] agent containing active substances, (P.), B., 407.

Connor, R., Fleming, C. L., jun., and Clayton, T., Michael condensation. IV. Active methylene group in sulphones, A., 1253.

and Van Campen, J. H., reagent [mercuric chloride+sodium ethoxide] for determination of structure [of organic compounds], A., 1133.

See also Dounce, A. L.

Connors, C. H. See Biekart, H. M. Conover, C., and Monsanto Chem. Co., benzoyl halides, (P.), B., 1143. Smith, F. D., Benz, C. V., and Monsanto

Chem. Co., earboxylic acid ketones and derivatives thereof, (P.), B., 537.

Conrad, K. F. See Nat. Aniline & Chem. Co. Conrad-Billroth, H., [optical absorption of substituted benzenes. VI.], A., 544. Substitution and absorption-band displacement. VII. Anthracene and naphthalene derivatives, A., 1048.

and Förster, G., substitution and absorption band displacement. VIII. Di-

halogenobenzenes, A., 1178.

Consden, R., and Kenyon, J., substitution in arylsulphon-1- and -2-naphthalides, A., 63. Action of bromine on 2- and 4-nitro-a-naphthylamines, A., 66.

Conservation Corporation of America. See Rice, G. E.

Consitt, N., Smith, J., and Cowell, R. E. distilling and coking mixtures of solid carbonaceous materials and hydrocarbon oils, (P.), B., 868.

Consolazio, W. V. Sec Keys, A.

Console, V. See Baglioni, A. Consolidated Car-Heating Co., Inc. Sec Touceda, E. G.

Consolidated Gas, Electric Light, & Power Co. of Baltimore. See Guernsey, E. W. Consolidated Mining & Smelting Co. of

Canada, Ltd. See Fingland, J. J., Lee, F. E., and Stimmel, B. A.

Consortium für Elektrochemische Industrie G.m.b.H., acetic anhydride, (P.), B., 310. Chlorine-substituted butanes, (P.), B., 1140. 1:1-[αα-]Dichloroethane, (P.), B., 1192. Aluminium ethylate [cthoxide], (P.), B., 1193.

Constant, N. D. See Davis, T. L. Constantinesco, D. See Solacolu, T. Constantinesco, P. Sec Tomesco, P.

Constantinescu, C. See Stover, N. M. Contardi, A., and Ciocca, B., action of calcium carbide on methyl alcohol, A.,

Continental Can Co., Inc. See Kronquest, A. L.

Continental Diamond Fibre Haroldson, A.

Continental Gummi-Werke rubber articles provided with ornamentations, inscriptions, etc., (P.), B., 561. Vulcanisation of rubber articles in moulds, (P.), B., 1221.

Continental Oil Co. See Mills, R. V. A., and Smith, E. J.

Contini, B. F., and Tedeschi, G., combustion of powdered pyrites, B., 1150.

Contzen, J. See Popp, M.

Convers, L., surfaco tension of calcium amalgam, A., 423.

See also Lemarchands, M.

Converse, H. T., Wiseman, H. G., and Meigs, E. B., relation between colour and vitamin-A content of butter and the feed of the cow, B., 1125.

Convey, J. See Smith, Stanley. Conway, C. G. See Tapsell, H. J.

Conway, E. J., apparatus for micro-determination of volatile substances. IV. Blood-ammonia, with observations on normal human blood, A., 223.

and Flood, J. C., apparatus for microdetermination of volatile substances. V. Micro-determination of bromide with application to blood and urine and observations on the normal human subject, A., 1009.

Conway, W. J., and Cerecedo, L. R., physiology of pyrimidines. VIII. Metabolism of isobarbituric acid in the rabbit, A., 887.

Cook, A. H., chromatographic analysis, A., 1218.

Cook, B. B. See Morgan, A. F.

Cook, C. A., and Carroll, R. H., accessory factors in rice polishings; extraction of antineuritic substance, B., 809.

Cook, E. S., and Rider, T. H., phenylurethane anæsthetics. II., A., 1103.

Cook, H. L., how the continuous enamelling furnace affects copperheads, B., 192. Cook, J. B., jun. Sec Du Pont de Nemours

& Co., E. I.

Cook, J. W., Dodds, E. C., and Lawson, W., cestrogenic activity of synthetic polycyclic compounds, A., 1247.

Dodds, E. C., and Warren, F. L., chemistry of cestrogenic substances, A., 252. and Hewett, C. L., dehydration of benzylcyclohexanols, A., 321. Constitution of hexahydropyrene,

Hewett, C. L., and Lawrence, C. A., now route to hydroaromatic ketones related to anthracene and phenanthrene, A.,

and Iball, J., stereochemistry of fluorene,

and Lawrence, C. A., synthesis of polyterpenoid compounds. II., A., 74. cycloHexylnaphthalenes and related compounds, A., 1497.

See also Bachmann, W. E., and Cohen,

Cook, M., physical properties and annealing characteristics of standard nickel-silver alloys, B., 237.

Cook, O. L., lime for pulp bleaching, B.,

Cook, R., compressed gas as fuel for motor transport, B., 226.

Cook, R. C. See Universal Oil Products

Cook R. K. See Brown, F. W.

Cook, R. M., relationship between soil moisture and crop growth [of sugar cane], B., 386.

Cook, R. P., cholesterol feeding and fat

metabolism, A., 1290. and Edson, N. L., respiration and keto-genesis in the "cholesterol" fatty liver, A., 1290.

and Harrison, K., isolation of acetic acid from mammalian liver, A., 1286.

and Robinson, P. L., kinetics of reaction between hydrogen and sulphur. III. Reaction at 350-412° and 50-150 mm.; behaviour of sulphur on a hot glass surface, A., 684.

See also Needham, J. Cook, S. F., and Scott, K. G., apparent intoxication in poultry, due to nitro-genous bases, A., 239.

Cook, Walter A. See Morris, R. E.

Cook, Warren A., chemical procedures in air analysis: methods for determination of poisonous atmospheric contaminants, B., 478.

and Coleman, A. L., determination of injurious constituents in industrial atmospheres. II. Determination of solvent vapours in air by means of activated charcoal, B., 525.

Cook, W. E., silicosis, A., 884.

Cooke, F. C., copra manufacture. I. Small copra kilns. II. Kilns of intermediate size, B., 1012.

Cooke, H. C., composition of asbestos and other fibres of Thetford district, Quebec, A., 308. Asbestos deposits of Thetford district, Quebec, A., 1357.

Cooke, M. B., pyrolitic decomposition of hydrocarbons, (P.), B., 534.
Cooke, R. D., laboratory control in dry-

process enamelling, B., 102. Cooke, S. R. B., microscopic structure and concentratability of iron ores of the United States, B., 838.

See also De Vaney, F. D., and Dodd, C. M.

Cooke, T. G. See Rodebush, W. H. Cooke, T. S. See Standard Oil Co. Cooke, W. T., dependence of internal

friction on magnetisation in iron, A., 17. Cookson, J. W., theory of the piezo-resistive effect, A., 1055.

Coolen, E. See Lacasse, V. Coolen, M. L. See Maisin, J.

Cooley, L., and Davies, J. R., sugar and shortening tolerance of soft wheat flours for cake-making, B., 1174. Technique of photography for permanent records of baking studies, B., 1175.

Cooley, L. M. Sec Jennison, H. M. Coolidge, A. S., and Bent, H. E., conductance of non-aqueous solutions. II. Temperature coefficient of conductivity, A., 565.

and James, H. M., wave functions for

1s2s1S helium, A., 774.

James, H. M., and Present, R. D., Franck-Condon principle, A., 543. See also James, H. M.

Coolidge, C. See Du Pont de Nemours & Co., $E.\ I.$

Cooling, L. F., physical properties of clay soils and some aspects of their mechanical behaviour, B., 209.

Coombs, C. E.See Bingham, E. C., and Schweyer, H. E.

Coombs, H. C., Pike, F. H., and Searle, D. S., relation of contracture and tetany to experimentally-produced calcium deficiency in cats, with and without lesions of the cortical motor areas, A., 250.

Coombs, H. I., apparatus for distillation, A., 1225. Hamoglobiu and iron of the blood. I. Determination of the total iron of blood, A., 1399.

Coon, E. M., and Laird, E. R., Raman effect in solutions of magnesium sulphate of varying concentrations, A., 1318.

Coons, C. M., and Coons, R. R., effects of cod-liver oil and wheat germ on retention of iron, nitrogen, phosphorus, calcium, and magnesium during human pregnancy, A., 511.

Coons, R. R. See Coons, C. M. Cooper, C. See Holmes & Co., Ltd., W. C.

Cooper, C. A. See Speakman, J. B. Cooper, D. See Dunbar, R. E.

Cooper, E. A. See Carruthers, A. Cooper, E. R. Sce Darbyshire, J. A.

Cooper, H. S., and Kemet Labs. Co., [nickel] alloy [for radio-valve filaments], (P.), B., 154.

Cooper, R. See Dunbar, R. E. Cooper, R. R. See McKellar, E.

Cooper, S. R., and Tulane, V. J., action of 4-nitropyrocatechol as a titration indicator, A., 949.

Cooper, S. S., and Ball T. R., magnetooptic method of chemical analysis. I. History and present status. II. Construction, adjustments and operation of apparatus; physical measurements; un-knowns. III. Location of minima and 7 quantitative analysis, A., 949, 1084.

Cooper, W. C., hormones in relation to root formation on stem cuttings, A., 394.

Cooper, W. G. G., Gold Coast bauxite, B., 1091. Cooper-Bessemer Corporation. Sco Wolfe, A. C.

Cope, A. C., preparation of magnesium dialkyl compounds from Grignard reagents, A., 195. Products of reaction of ethyl dichloroacetate with alcoholic sodium ethoxide, A., 705.

Cope, F. See Hunscher, H. A. Cope, W. F., and Houghton, R., accuracy attainable with the Chattock tilting manometer, A., 583.
Copeland, L. E. See Magraw, D. A.

Copello, F., variations of the dehydroascorbic/ascorbic acid ratio in liver and adrenals after administration of parasympatheticotropic substances, A., 375. Ratio of dehydroascorbic to ascorbic acid in the heart after administration of parasympathicotropic substances, A., 1304. See also Martini, E.

Copelman, L. See Crainiceanu, A.

Copeman, D. A., solubility relationships of 96% alcohol and glyceryl nitrate, A., 421. Copeman, P. R. v.d. R., composition of orange skins, A., 1435.

Copenhaver, J. E. See Culp, F. B.

Copisarow, M., metabolic oxidation and radiation, A., 102. Biochemical factors of cancer, A., 882. Colloid substrate in photosynthesis, A., 1348. Metabolism of fruit and vegetables in relation to preservation, B., 569. Maleic acid for plant spraying, B., 1116.

Copley, M. J., and Glasser, J., surface ionisation of casium on tungsten, A.,

and Phipps, T. E., surface ionisation of potassium on tungsten, A., 129. Reflexion coefficient of electrons, A.,

Copper & Brass Research Association. See Lorig, C. H.

Copping, A. M., water-soluble B-vitamins. V. Two types of skin lesion occurring in vitamin-B2 deficiency in the rat in relation to deficiency of flavin and vitamin- B_6 , respectively. VI. Flavin and vitamin- B_c in cereals, A., 905.

Coppo, M., mineral composition of bone,

A., 1286.
and Frugoni, P., relations between parathyroid hormone and vitamin-D, A., 1158.

and Pisa, M., action of small doses of parathyroid hormone on the magnesium of the organism, A., 250.

See also Messini, M. Coppock, A. See Freed, S. C.

Coppock, J. B. M., and Partridge, S. M., reduction of y-phenyl-a-methylallyl alcohol with deuterium, A., 840. Coppock, P. D. See Distillers Co.

Copson, R. K., Newton, R. H., and Lindsay, J. D., superphosphate manufacture; mixing phosphate rock with concentrated phosphoric acid, B., 1091.

See also Newton, R. H.Corbaz, J. See Deshusses, L. A.

Corbellini, A., and Atti, M., anthanthrone and its derivatives. VII. Halogenation, nitration, and sulphonation of anthanthrone, A., 1113.

Botrugno, C., and Villa, P., anomalous decomposition of the tetrazo-derivative of 2:2'-diamino-1:1'-dinaphthyl. III., A., 979.

Corbellini, A. Sce also Rondoni, P.

Corben, H. C., relation between internuclear distance and group number for

diatomic hydrides, A., 1052.

Corbet, A. S., and Wooldridge, W. R., accuracy of the Barcroft differential manometer in respiration studies, A.,

Corbet, R. E. Seo Holmes, H. N.

Corbiau, L., phosphatæmia induced by daily ingestion of disodium phosphate, A., 1009.

Corbière, J. See Lambrey, M.

Cordero, N., modification of the Haldane-Henderson apparatus for analysis of respiratory gases, A., 1007.

Cordes, H., absorption spectrum of the iodine molecule in the vacuum ultraviolet, A., 128.

Cordes, W. A. See Downs, P. A.

Cordier, P., condensation of phenylpyruvic acid with acetophenone, A., 848, 1508.

Cordill, S. C. See Eaton, A. G.

Cordon, E., formulating varnishes with American tung oil, B., 510. Cordon, T. C. See Burrows, W., and Waksman, S. A.

Cordy, H. J. See Gen. Chem. Co.

Corey, A. J., and Maass, O., kinetics of the sulphite process, A., 1470. Influence of preheating of wood in water on rato delignification by sulphite liquor, B., 103. Influence of p_H with pretreatment of wood on its subsequent delignification, B., 235.

Corey, E. L., growth and glycogen content of the feetal liver and placenta, A., 225. Fœtal carbohydrate metabolism following adrenalectomy, insulin, and glucose experiments on the mother, A., 511.

Corey, G. H. See Corson, M. G. Corey, R. B., and Wyckoff, R. W. G., long spacings in macromolecular solids, A., 927.

See also Wyckoff, R. W. G. Corhart Refractories Co. See Kraner, H, M.

Cori, B., dust filter against poisonous dusts, (P.), B., 1070.

Ceri, C. F., and Cori, G. T., mechanism of hexose monophosphate formation in muscle and isolation of a new phosphate ester, A., 1533.

Fisher, R. E., and Cori, G. T., effect of adrenaline on arterial and venous plasma-sugar and blood flow in dogs and cats, A., 1425.

See also Steiner, A.

Cori, G. T. See Cori, C. F., and Fisher, R.~E.

Coria, P. E., equilibrium constant of the system ethyl alcohol-acetic acid, A., 1202.

Corin, C., infra-red absorption spectra of chlorinated methanes, A., 546. Spectra [of substituted methanes] in the near infra-red, A., 776. [Absorption] spectra in the near infra-red; methane and its chloro- and nitro-derivatives, A., 1049.

and Herry, J., infra-red absorption spectra of liquefied gases; methane, A., 406.

Coriselli, (Signa.) C. See Cambi, L. Cork, J. M., and Lawrence, E. O., transmutation of platinum by deuterons,

Cormie, J. M., geology and ore deposits of the Central Patricia gold mine, Ontario, A., 700.

Cornelison, A. H. See Das, U. K.Cornelius, H., and Esser, H., nitrogen content and structural abnormality of sintered carbonyl steels, B., 322.

See also Bollenrath, F., Eilenden, W., and Esser, H.

Cornelius, Y. R. E., electric furnaces, (P.), B., 155.

Cornell, E. S., jun., alloys predominantly of copper content, (P.), B., 843.

Cornell, F. G., jun., deodoriser [for dairy products], (P.), B., 1232.

Cornell, G. W., modified Nessler tube set,

Cornell, S. D., and Watson, W. W., pressure effect in the HCN bands in the near infra-red, A., 1179.

Corner, G. W., effect of ovarian hormones, cestrin and progestin, on the menstrual cycle of the monkey, A., 527. Sec also Makepeace, A. W.

Cornillot, A., and Alquier, R., action of acetylene on acetyl chloride, A., 52.

Corning Glass Works, and Badger, A. E., fused silica and silica glass, (P.), B., 933.

and Hood, H. P., borosilicate glass containing cerium, (P.), B., 1207. Hood, H. P., and Nordberg, M. E.,

glassware, (P.), B., 409. Low-expansion glass for making telescope mirrors and other massive articles, (P.), B., 643.

and Hyde, J. F., articles containing or consisting of silica, (P.), B., 147.

and Littleton, J. T., tempering a glass article, (P.), B., 1094. and McCauley, G. V., cooling of glass,

(P.), B., 276.

and Shaver, W. W., electrical insulators having high surface leakage resistance, (P.), B., 1213.

See also Farncomb, F.J., Littleton, J.T., McCauley, G. V., Oakley, W. W., and Taylor, W. C.

Cornthwaite, W. R., Lazarus, S., Snellings, R. H., jun., and Denoon, C. E., jun., creatinine derivatives. II., A., 864.

Corran, R. F., Pritchard, J., and Rymill, F. E., thyroid standardisation and dosage, A., 116. and Rymill, F. E., effect of hot solvents

on ergot and of storage on its activity, B., 75. Determination of mercury content of mercurochrome, B., 76.

Correa, L. M. See Roffo, A. H. Correns, C. W., petrography of clay, A.,

450. and Schlünz, F. K., mineralogical examination of three Mecklenburg soils, B., 897.

Corriez, P., X-ray diagrams of sugar carbon submitted to various thermal treatments, A., 143. Electrical resistance and magnetic susceptibility of sugar carbon submitted to various thermal treatments, A., 277. Properties of graphite derived from the transformation of diamond,

A., 412. Corsini, E. See Oddo, G.

Corson, B. B. See Ipatiev, V. N.

Corson, G. E., and Clinton Corn Syrup Refining Co., paper bonding method and

composition, (P.), B., 231.

Corson, M. G., making strong brass and brass strong; practical considerations in producing brass castings and forgings. I—III. Conclusion, B., 412. 793. What is phosphor bronze? B., 793.

Corson, M. G., and Corey, G. H., copper alloy [bronze], (P.), B., 504.

and Electro Metallurg. Co., heat-treatment of alloys, (P.), B., 503. See also Stone & Co., J.

Corteen, H. See Tootal Broadhurst Lee

Corteggiani, E., Gautrelet, J., Halpern, N., and Serfaty, A., inhibitory action of formaldehyde on activity of blood choline-esterase, A., 379.

See also Gautrelet, J.

Cortell, R. See Roberts, A.

Cortese, F., synthesis of taurine, A., 459. and Bauman, L., synthesis of conjugated bile acids. II. Glycodeoxycholic acid, A., 724. Cortese, V. See Sollazzo, G.

Corwin, A. H., and Andrews, J. S., pyrrole series. II. Mechanism of aldehyde synthesis of pyrromethenes, A., 1122. and Quattlebaum, W. M., jun., pyrrole series. I. Preparation of N-methyl-

pyrroles, A., 1121. Coryell, C. D. Sec Pauling, L.

Coschevanov, V. G. See Nikitin, L. V. Cosmovici, N. L., and Atanasiu, J. S. presence of sterols in the mud of the salt lake of Tékirghiol (Dobrodgéa) [Ru-

mania], A., 1549.

Cosmulesco, I. See Tomesco, P. Cosslett, V. E., variation in lattice constant of zinc oxide, A., 144.

Cossu, F., action of ultra-violet irradiation on surface tension of serum-albumin solutions, A., 1019.

Costa, D., and Denaro, T., alcohol-soluble lccithinphosphorie acid in wheat meal and the determination of egg products in farinaceous foods, B., 566.

Costa, F., and Munumer, C., etching com-

pound, (P.), B., 1046. Costa, N. P., Escardo, F., and Schere, S., blood-calcium in newborn infants, A.,

Costa, O. de A., and Peckolt, O. de L., study of [Brazilian] "castanha mineira," A., 396.

Costa, W. M., electrolytic production of powdered metals, (P.), B., 240.

Costantini, E. See Manzini, C. Coste, F. See Beck, A. Coste, J. H., dispersoids in country and town air, A., 1198.

and Courtier, G. B., sulphuric acid as a disperse phase in town air, A., 1219. and Garratt, D. C., anæsthetic ether:

effect of impurities; peroxides, B., 905.

Costeanu, G., Raman effect in liquid ammonia and solutions of nitrates in liquid ammonia, A., 776.

and Renaud, P., diffusion of gases from capillary tubes, A., 793.

Costeanu, N. D., determination of gold with gaseous hydrogen phosphide and filterpaper, A., 1222.

Costeanu, R. N., detection and determination of gold by means of filter-paper impregnated with reducing substances, A., 696.

Coster, D., and Brons, F., perturbations in the second positive nitrogen bands, A., 127. Dissociation energy of CO, A.,

and De Langen, K. W., Auger effect and relative intensity of L-emission lines,

Coster, N. W., bleaching Western hemlock, B., 1200.

Cosyns, M. G. E., geomagnetic effect on cosmic radiation in the stratosphere, A., 658. Specific ionisation of cosmic radiation, A., 1315.

Cotchett, L. M., and Textile Patent & Process Co., treatment of wooden articles such as spools and bobbins, (P.), B., 1096.

Cotel, E., probable development of the profiles of blast furnaces, B., 741.

Cotoni, L., and Pochon, J., titration of therapeutic sera by neutralisation of antibody in vitro, A., 748. Testing of therapeutic serum. I. Antipneumococcus serum in vivo and in vitro, A., 1402.

Cotté, E., inflammation of firedamp by filaments of incandescence electric lamps, B., 482.

Cottee, C. H. F., dehydration of Glauber's salt, etc., (P.), B., 987. Cotter, E. W. See Stone & Co., J.

Cottet, J. See Belluc, S., Chabrel, E., and Loeper, M.

Cotti, L., effect of ascorbic acid on coagulation of blood in normal and pathological conditions, A., 765.

Cottier, W., control of the bronze beetle (Eucolapsis brunnea), B., 211.

See also Reid, W. D. Cotton, E. J. L., air cleaners, (P.), B., 480. Cotton, F. H. See Gibbons, P. A.

Cotton, R. T., and Young, H. D., fumigant, (P.), B., 1062.

See also Back, E. A. Cotton, W. J. Seo Nat. Aniline & Chem. Co.

Cottrell, A. F. Sco Woodall-Duckham (1920), Ltd.

Cottrell-Dormer, W., occurrence of conglomerate grain and inclusions [in sugar],

Cotui, F. W. See Wright, A. M.

Coubrough, G. B., and Lummus Co., condensation of petroleum fractions, (P.), B., 262. Fractionation of petroleum mixtures, (P.), B., 1190.
Couch, J. F., numbering of sparteine

molecule and its derivatives, A., 741. Lupins. IX. Monolupine, a alkaloid from Lupinus caudatus, Kellogg. XI. Alkaloids of Lupinus barbiger, S. Wats., A., 741, 1131. Deltaline, a new alkaloid from Delphinium occidentale, S. Wats., A., 743.

See also Clawson, A. B. Coufalik, F., coking properties of coals, B., 1026.

See also Simek, B. G.

Coulson, C. A. See Lea, D. R.Coulson, E. J., iodine content of American

fishery products, A., 748.

Remington, R. E., and Lynch, K. M., metabolism in the rat of the naturallyoccurring arsenic of the shrimp as compared with arsenic trioxide, A., 512.

Coulter, C. B., Stone, F. M., and Kabat, E. A., ultra-violet absorption spectra of proteins and amino-acids, A., 775.

Coulthard, C. E., resistance of bacterial spores to bactericidal effect of moist heat at 80°, with reference to the tyndallisation process of B.P. 1932, B., 1128.

and Sykes, G., germicidal effect of alcohols, B., 910.

Coumou, J., viscosity of supersaturated solution of sucrose, A., 1331. Coupechoux, R. Sce Kahane, E.

Courbis, J. A., crystallisation, B., 720.

Courmont, P., Morel, A., Perrot, L., and Dénard, F., inhibitory power of the neutral sulphate of 8-hydroxyquinoline ("sunoxol") on tubercle bacilli in different media, particularly in homogeneous cultures, A., 1156.

Cournot, J., applications of molybdenum in metallurgy, B., 322. Applications of bismuth, B., 325.

Courrier, R., biological determination of

corpus luteum extracts, A., 389. Ovarian hormonal antagonism caused by the two crystalline hormones, A., 1030. Courser, K. S., dyeing of wood, B., 492.

Courtaulds, Ltd., and Collings, F. J., artificial filaments, threads, etc. [of vary-

ing thickness], (P.), B., 881.

and Hegan, H. J., apparatus for drying cakes of artificial threads, filaments, etc., (P.), B., 588. Artificial threads, filaments, etc., (P.), B., 588.

Hegan, H.J., and Proctor, J., treatment [drying] of artificial threads, filaments.

etc., (P.), B., 690.

and Morton, E. A., [drying] of artificial threads, filaments, etc., (P.), B.,

and Wormell, R. L., organic esters of cellulose, (P.), B., 689. Partly acetylated cellulose threads, (P.), B., 785.

Courtial, J. See Fiessinger, N.

Courtice, F. C., and Douglas, C. G., effect of prolonged muscular exercise on metabolism, A., 627.

Courtier, G. B. See Coste, J. H. Courtney, J. R., and Ward, H., filter apparatus for dry-cleaning units, (P.), B., 17. Condensers, particularly for dry-cleaning apparatus, (P.), B., 17.

Courtois, J., electrical firing in the ceramic

and glass industries, B., 19.

Courtois, Jean, combining power of takadiastase towards glycerophosphates, A., 111. Comparative hydrolysis of a- and β -glycerophosphoric acids by vegetable phosphatases. II. Taka-diastase, A., 111. Action of chemical compounds on vegetable phosphatases, A., 245. Determination of ortho- in presence of pyrophosphate by Copaux' method, A., 578. Application of Copaux' technique to determination of arsenic acid, A., 578. Determination of phosphate in presence of arsenate, A., 694. New alcoholic fermentation process, B., 1122.

Courtot, C., and Bastani, M. G., diphenylene

telluride, A., 1280.

Courty, C., measurement of coefficient of magnetisation of organic liquids, A., 556. Determination of coefficient of magnetisation of solids, A., 814. Diamagnetism of thiocyanates and of the cuprous ion, A., 928. Exaltation of magnetism of ferric oxide by calcination in presence of ashless filter-paper, A., 1190.

Courvoisier, L., Lorentz contraction of a liquid, A., 1442. Lorentz contraction determined with levelled apparatus free

to rotate, A., 1442.
Couturier, P., action of mixed organomagnesium compounds on aromatic Ndiethylamides with phenolic groups, A., 1107.

Covell, G. effect of Paris-green dusting on

rice crops, B., 661.

Covello, M. See Malquori, G.

Coveney, M. F. See Begg, N. D.

Cover, S., testing tenderness in meat: the

paired-eating method, B., 857.

Covill, R. W., chlorination in sewage treat-

ment, B., 862. Cowan, D. W., and Bauguess, L. C., myohemoglobin content of the hypertrophied heart of the anæmic rat, A., 1538.

Cowan, R. See Standard Oil Development

Coward, K. H., utilisation by the rat of vitamin-A and carotene administered in different media, A., 1566. Accuracy of vitamin-A determinations, A., 1566. Influence of length of test period on accuracy obtainable in a vitamin- B_1 test, A., 1566.

Cambden, M. R., and Lee, E. M., determination of vitamin-A by means of its influence on the vaginal contents

of the rat, A., 253.

and Kassner, E. W., determination of vitamin-C by means of its influence on body-weight of guinea-pigs, A., 1430.

and Morgan, B. G. E., determination of vitamin-A and -D in foods cooked and fresh, B., 568

See also Knapp, A. W. Cowdery, A. B. See Barrett Co.

Cowdrey, W. A., Hughes, E. D., and Ingold, C. K., reaction kinetics and the Walden inversion, A., 1487.

Cowdry, W. A. R. See Wells, W. G. Cowell, R. E. See Consitt, N.

Cowenbergh, M. van. See Ramart-Lueas, (Mme.) P.

Cowgill, G. R. See Block, R. J. Cowgill, W. W. See Sardik, Inc.

Cowie, D. B., Geiger-counter characteristics with applied potentials reversed, A., 131. Cowie, D. M., and Magee, M. C., lipin diseases. IV. Lipin content of tissues in status epilepticus, toxic encephalopathy, and chronic leptomeningitis, A.,

505. Cowles, E., Cowles system for detrashing and defibring waste paper stock, B.,

and Electric Smelting & Refining Co., conditioning of crystalline materials [alkali silicates], (P.), B., 145.

Cowles, H. C., jun. See Henderson, L. M. Cowles, M. W., odour-control methods [in water purification] aided by new test equipment, B., 526.

Cowles Engineering Corporation, refining of

paper pulp, (P.), B., 1088.

Cowley, \tilde{E} . \tilde{G} ., and Partington, J. R., dipole moments of ethyl and isoamyl borates and triphenyl phosphate, A., 12. Dielectric polarisation. XIV. Dipole moments of ethyl-, phenyl-, and α - and β -naphthyl carbimides. XV. Dipole moments of five-membered nitrogen ring compounds: indole, skatole, carbazole, isatin, phthalimide, and succinimide. XX. Dependence of polarisation and apparent moment of nitriles on solvent and temperature, A., 408, 1183. Cox, A. B., difficulties in colorimetrie

determination of $p_{\rm H}$ values, A., 577. Titrations with 0.001 N-iodine, A., 577.

Cox, C. H., soya-bean analysis, B., 1066. Cox, C. R., control of chlorination [of water], B., 1070.

Cox, E. G., and Goodwin, T. H., crystalline structure of the sugars. III. Ascorbic acid and related compounds, A., 927.

Sharratt, E., Wardlaw, W., and Webster, K. C., planar configuration of quadricovalent compounds of bivalent copper and nickel, A., 410.

Cox, E. G., Wardlaw, W., and Webster, K. C., planar configuration of quadricovalent nickel, palladium, and platinum: dithiooxalate derivatives, A., 13. Stereochemistry of quadricovalent atoms: copper and silver, A., 925.

Cox, E. R., b.p. of normal paraffin series, A., 149. Hydrocarbon vapour pressures, A., 788.

See also Texas Co.

Cox, G. A., and Whitehead, H. R., streptococci producing a substance inhibiting growth of lactic streptococci, A., Ī155:

See also Whitehead, H. R.

Cox, G. E., and Amer. Cyanamid Co., granulated calcium nitrate, (P.), B.,

Cox, H. E., [roller] mills for grinding, refining, and other processes, (P.), B., 1135. Combination plant for grinding, mixing, and finishing paint and other

materials, (P.), B., 1135.

Cox, Henry E., chemical aspects of dermatitis, A., 1407. Chemical examination of furs in relation to dermatitis. VI. Identification of vegetable and other dyes, B., 231.

Cox, H. L. See Carbide & Carbon Chem.

Corp., and Gough, H. J.

Cox, J. C., and Wagner Electric Corp.,
operating fluid for hydraulic transmission,
(P.), B., 722.

Cox, R. F. B., and Stormont, R. T.,

acetonecyanohydrin, A., 591.

Cox, R. S. See Hallam, C. D. Cox, R. T. See Langer, L. M.

Cox, S. H. See Callender's Cable & Construction Co.

Cox, W. M., and Imboden, M., purified diet satisfactory for growth, reproduction, and lactation in rats, A., 1409. Cox, W. M., jun. See Reid, E. E. Crabtree, D. E. See Willard, M. L.

Crabtree, D. G., and Longwell, B. B., effect of excessive dietary sodium chloride on liver- and muscle-glycogen in the rat, A., 1543.

Crabtree, H. G., separation of glyoxalase activity and glycolytic activity by means of radium radiation, A., 1299.

Crabtree, J. I. See Parker, H. Craciunescu, E. See Tanasescu, I.

Craddock, F. L., and Mixing Equipment Co., Inc., emulsifying unit, (P.), B.,

Craddock, Q. L. See Watson, W. Craemer, K. See Alumin

Aluminiumwerk Tscheulin G.m.b.H.

Craft, B. C., Johnson, T. J., and Kirk-patrick, H. L., effects of temperature, pressure, and water-cement ratio on setting time and strength of cement, B., 934.

Crafts, A. S., exudation in cucurbits, A., 1432. Effectiveness of sodium chlorate as a herbicide, B., 247. Toxicity of sodium arsenite and sodium chlorate in California soils, B., 247. Sodium ehlorate in weed control, B., 293.

Crafts, W., and Electro Metallurg. Co., [free-machining] alloy steel, (P.), B., 1045.

See also Kinzel, A. B.

Cragg, L. H. See Beatty, R. M.

Craggs, H. C., and Allmand, A. J., photochemical union of hydrogen and chlorine. IV. Reaction at low hydrogen pressures; effects of wave-length, of temperature, and of traces of oxygen, A., 437.

Crago, A., Motsinger, H. C., and Phosphate Recovery Corp., concentration of baritebearing minerals, (P.), B., 987.

Craig, D., and Goodrich Co., B. F., antioxidants [for rubber], (P.), B., 896.

See also Coleman, G. H., and Semon, W. L. Craig, F. N., fat oxidation system in Lupinus albus, A., 1164.

Craig, G. L. See Irion, C. E. Craig, L. C., micro-distillation apparatus, A., 956.

See also Jacobs, W. A. Craig, W. A., Griffith, F. E., and McDuffie, W. C., asphalt coating material, (P.), B., 437.

Craigie, J., and Wishart, F. O., titration of the L and S antigens of vaccinia virus in extracts of the vaccinated skin of the rabbit, calf, and guinea-pig, A., 249. Craik, J. Seo Imperial Chem. Industries.

Crainiceanu, A., and Copelman, L., action

of insulin on the ovarian cycle, A., 763. Cramer, H. I., and Wingfoot Corp., thiouram disulphides, (P.), B., 1082.

Cramer, P. L., and Mulligan, M.J., preparation of isomeric hexanes, A., 451. Cramer, W., and Horning, E. S., experi-

mental production by cestrin of pituitary tumours with hypopituitarism and of mammary cancer, A., 504. Effect of costrin on the pituitary gland, A., 901.

Crampton, C. B. Soo Schneider, E. C. Crampton, D. K., and Vreeland, J. J., highclectroconductive copper alloy, (P.), B., 25.

Crampton, E. W., comparative feeding values for poultry of barley, oats, wheat, rye, and maize, B., 1067.

and Finlayson, D. A., pasture studies. VII. Effect of fertilisation on nutritive value of pasture grass, B., 384.

Crandall, L. \bar{A} ., jun., origin and significance of blood-scrum enzymes, A., 1296. See also Beazell, J.

Crane, H. R., Delsasso, L. A., Fowler, W. A., and Lauritsen, C. C., y-rays from boron bombarded with deuterons, A., 402. High-energy γ-rays from lithium and fluorine bombarded with protons, A., 402. γ-Rays from disintegration of beryllium by deuterons and protons, A., 1173. Emission of negative electrons from boron bombarded by deuterons, A., 1174. Emission of negative electrons from lithium and fluorine bombarded with deuterons, A., 1174. γ-Rays from nitrogen bombarded with deuterons, A., 1441. y-Rays from boron bombarded with protons, A., 1441.
Gaerttner, E. R., and Turin, J. J., cloud

chamber study of the Compton effect, A., 1170.

and Lauritsen, C. C., radioactivity produced by artificially-accelerated particles, A., 131. Masses of *Be, *Be, and *B* as determined from transmutation data, A., 1042. See also Gaerttner, E. R., and Lauritsen,

C. C.

Crane Co. See Eckman, H. A.

Crane, Ltd., and Shepherd, H. H., malleable iron and grey cast iron, (P.), B., 329. Cranfield, H. T. See Straw, H. T.

Cranston, J. A., and Brown, H. F., chemical union of acids with one another, A., 564.

Crapo, F. M., and Indiana Steel & Wire Co., metal- [zinc-]coated ferrous article, (P.), B., 331. Overhead electrictransmission lines, (P.), B., 1001.

Crapo, F. M., and Indiana Steel & Wire Co., metal-coated ferrous article [galvanised iron wire], (P.), B., 1047. See also Fowle, F. F.

Crary, A. P., and Ewing, M., propagation of clastic waves in ice. II., A., 19. See also Ewing, M.

Crasemann, C., and Widmer, A., silage and

butter quality, B., 616. Crater, W. de C. See Hercules Powder Co. Craver, A. F., galvanised tank corrosion on automatic water heaters, B., 720.

Crawford, A. L. See Head, R. E.

Crawford, B. L., jun., and Parks, G. S., heat of hydrogenation of dissobutylene, A., 429.

Crawford, C. H. See Savage, E. S. Crawford, F. A. F. See Imperial Chem.

Industries.

Crawford, F. H., and Jorgensen, T., jun., band spectra of LiH, LiD, and NaD, A., 405. Band spectra of the hydrides of lithium. III. Potential curves and isotope relations, A., 775. Isotope relations in the spectra of LiH and LiD, A., 1442.

and Tsai, P. M., new bands of the ionised

nitrogen molecule, A., 397.

Crawford, J. J., uso of white pigments in paper, B., 365. Crawford, J. W. C. See Imperial Chem.

Industries.

Crawford, M. See Wieland, H. Crawley, B., and Griffith, R. H., interaction of carbon disulphide and sulphur dioxide, A., 1472.

Crawshaw, J. D. See Follett, D. H. Craxford, S. R., Gatty, O., and McKay,

H. A. C., electrocapillarity. IV. Interpretation of data, A., 1196.

Craytor, M. W. See Oldham, E. W.

Creae'h, P., action of dinitrothiophen on metabolism of Fleischmann's yeast, A., 381. Action of m-dinitrobenzene and its reduction derivatives on metabolism of Fleischmann's yeast, A., 381.

Creamery Package Manufacturing Co., liquid-irradiating apparatus, (P.), B.,

Creedy, L. D. See Hume, R. H. Creifelds, O. See Darapsky, A. Creighton, H. J., and Atlas Powder Co.,

[clectrolytic] reduction of sugars to alcohols, (P.), B., 118.

Creighton, H. M. See Berndt, E. C.

Cremer, H., action of sulphurous acid on

bactericidal power of blood, A., 115. Cremer, H. D., electrokinetic potential of thrombocytes, A., 221.

Cremer, H. W., application of metals in chemical engineering, B., 413.

Crépy, O. See Wurmser, \hat{R} . Crespí, M., kinetics of adsorption. II. Equations for the velocity of adsorption and their experimental verification, A., 1195.

and Aleixandre, V., adsorption of gases by glass walls. XIII. Sulphur dioxide on Jena glass. XII. Ammonia on Jena glass, A., 940, 1195.

and Caamano, J. L. G., pyrolysis of chlor-

ates and perchlorates. I., A., 803. Crespi Gherzi, R. A. See Sagastume, C. A. Crespinel, W. T., and Cinecolor, Inc., making of coloured photographs, (P.), B., 1132.

and Hughes Industries Co., production of films in natural colour, (P.), B.,

Crespo y Garcia, J. See Clifford, P. C.

Cressman, A. W., and Dawsey, L. H., comparative insecticidal efficiency against camphor scale of spray oils with different unsulphonatable residues, B., 899.

and Plank, H. K., camphor scale (Pseudaonidia duplex), B., 386.

Cretcher, L. H., Nelson, W. L., and Mellon Inst. of Industr. Res., $[\beta]$ hydroxyethyldihydrocupreine and salts, (P.), B., 476. Crew, J. A., removal of ferrous impurities

from sands, (P.), B., 498.

Crichton, A., conservation of grass; hay, silage, or dried grass, B., 121.

Crider, F. J. See Breazeale, J. F.Crider, J. O. See Thomas, J. E.

Criegee, R., osmic acid esters as intermediate products in oxidations, A., 603.

Crima Société Anonyme, conversion of alcohols into ethers, (P.), B., 823.

Crimail, Y. See Bancelin, J.

Crimm, P. D., and Strayer, J. W., phosphatase content of blood-serum and tissues in the rat following administration

of vitamin-D and -A, A., 379. Crippa, G. B., and Perroncito, aβ-naphthoquinoxaline-2:3-dicarboxylic acid, A., 345. A new heterocyclic grouping: benzopyrimidazole, A., 346. Expulsion of the arylazo-group in o-aminonaphthaleneazo-derivatives, A.,

Crismer, R., action of amino-acids on contractions and production of lactic acid by the isolated heart, A., 757.

Crisostomo, F. See Adriano, F. T.

Crisp, W. S., and Weir, W. J., removal of ink from and bleaching of printed paper, (P.), B., 1035.

Crist, J. L., application of sulphur dyes, B.,

Crist, R. H., and Roehling, O. C., oxidation of carbon monoxide catalysed by nitro-

gen dioxide, A., 34. Cristodulo, N. See Cândea, C. Criswell, C. H., continuous [sugar-]crystal-

lisation process, B., 424. Critehett, J. H. See Electro Metallurg. Co. Critchfield, C. L. See Wallace, E. L.

Crites, N., automatic liming systems [for sugar juice], B., 1062.

Crittall & Co., Ltd., R. See Mount, S. C. Crittenden, E. D., and Atmospheric Nitrogen Corp., catalyst [for ammonia oxidation], (P.), B., 987.

Croad, R. B. See Howroyd, McArthur & Co.

Croce, M., and Certain-teed Products Corp., cementitious material, (P.), B., 643. Crockett, J. B., and Heyeatex Corp.,

rubber goods from latex, (P.), B., 244.

Croekford, H. D., and Addlestone, J. A., solubility of lead sulphate in aqueous sulphuric acid at high concentrations, A., 675.

and Farr, H. O., jun., activity coefficients of lead chloride in aqueous solutions of barium nitrate, A., 289.

Croco, C. W., and Kinetic Chemicals Inc., halogenated derivatives of aliphatic hydrocarbons; ane], (P.), B., 441. [dichlorodifluorometh-

Crohn, N. See Soskin, S. Croizat, P. See Chambon, M. Crommelin, C. A. See Mathias, E. Cromwell, N. H. See Campbell, A. W. Crook, J. H. See Hodgson, H. H. Crook, W. J. See Négresco, T.

Crooker, A. M., hyperfine structure of lead 111, A., 1168.

Crooks, H. M. Seo Marker, R. E.

Crosby, E. L., Rhoads, A. E., and Detroit Electric Furnace Co., [white cast] iron having improved characteristics, (P.), B., 1044.

Crosby, R. H. See Shell Development Co. Crosland, E. W. See Vicars, Ltd., T. & T. Crosley, R. W. See Near, H. B.

Crosnier, $R_{\cdot,\cdot}$ determination and calculation of the sensitisation of the complementfixation reaction by titration with a fixed quantity of hæmolytic serum (anti-sheep hæmolytic system), A., 748.

Cross, A. E. Seo Markwell, W. A. N. Cross, C. L., and Eldridge, J. A., electron collisions in mercury vapour: the 9.8 volt loss, A., 4.

Cross, F. See Webster, J. E.

Cross, P. C., thermodynamic properties of sulphur compounds. II. Sulphur dioxide, carbon disulphide, and carbonyl

sulphide, A., 161. and Brockway, L. O., molecular structures of sulphur dioxide, carbon disul-

phide, and carbonyl sulphide, A., 144. and Leighton, P. R., exchange reactions with deuterium. I. Deuterium and hydrogen chloride, A., 288. See also Brockway, L. O.

Cross, R. W., hardening of steel, (P.), B.,

Cross, W. E., effect of mosaic on yields of varieties P.O.J. 36, 213, and 2725 (sugar cane), B., 210. Planting sugar-canes, B., 210. Effect of water-soaking on composition of [sugar-]cane juice, B., 1173. Effect of stripping [sugar] cano on the composition of the juice, B., 1173.

Cross, W. M., and Gasoline Products Co., conversion of petroleum oils, (P.), B., 9. Cross Development Corporation. Seo Har-

eourt, G. N. Crosse & Blackwell, Ltd., Clayton, W., and Johnson, R. I., sealing compositions for

containers, (P.), B., 337. Crossfield, J. T. K. See Bond, A. E. Crossley, F. S. See Miller, E., and Young,

W. G.

Crossley, H. E., diphenylcarbazide; an internal indicator for use in titration of iron with dichromate, A., 580. Determination of nitrogen in coal by the Kjeldahl method, using selenium as catalyst, B., 49.

See also King, J. G.Crossley, H. F., modifications of the Gutzeit method for determination of arsenie, A., 1351.

Crothers, R. P., treatment of sulphur-bearing ore, (P.), B., 594.

Crouch, R. H. See Pierpoint, A. J.

Crougue, O. See Chorine, V. Crout, P. D., application of kinetic theory to problems of evaporation and sublim-

ation of monatomic gases, A., 558. See also Giddings, H. A. Crowder, J. A., and Harris, M., mechanism

of sulphur lability in alkali degradation of wool-protein, B., 782.

Stodola, F. H., and Anderson, R. J., lipins of tubercle bacilli. XLV. Isol-

ation of a- and β-leprosol, A., 1028.

Stodola, F. H., Pangborn, M. C., and Anderson, R. J., lipins of tubercle bacilli. XLIV. Comparative study of lipins of human tubercle bacillus, A., 899.

See also Anderson, R.J.

Crowe, J. J., and Air Reduction Co., Inc., [ferrous alloy] welding rod, (P.), B., 1161. Crowe, M. O'L., ultra-violet absorption of phthiocol, a pigment of the human tubercle bacillus, A., 1423. See also Wadsworth, A.

Crowe, T. B. See Merrill Co., and Mills, L. D.

Crowell, J. H. See Nat. Aniline & Chem. Co.

Crowell, M. Sco McCay, C. M.

Crowell, O. B., non-metallic printing plates, (P.), B., 705.

Crowell, W. R., and Baumbach, H. L., potentiometric determination of quadrivalent osmium with chromous sulphate, A., 180.

Hillis, T. E., Rittenberg, S. C., and Evenson, R. F., iodometric determin-

ation of copper, A., 303.

Crowfoot, (Miss) D. M., X-ray crystallographic measurements on phrenosinic (cerebronic) acid and its oxidation product, A., 927.

and Jensen, H., mol. wt. of cinobutagin,

A., 1517.

Rapson, W. S., and Robinson, Robert, synthesis of substances related to the sterols. XI. Constitution of the condensation products from acetylcyclopentene or acetylcyclohexene methoxytetralone, A., 989. See also Bernal, J. D., Blount, B. K.,

and Mann, F. G.

Crowley, H. L., and Crowley & Co., Inc., H. L., ceramic [insulating] product, (P.), B., 595.

Crowley & Co., Inc., H. L. See Crowley, H.L.

Crowther, F. See Lambert, A. R. Crucible Steel Co. of America. Se See Kingsbury, A. H., and Payson, P.

Cruellas, J. See Fester, G. A. Cruess, W. V., and Cash, L., canning of California grape juice, B., 1124.

Mrak, E. M., and Quin, P. J., combating browning of peaches after lye peeling, B., 761.

See also Douglas, H. C.

Cruess-Callaghan, G., application of catalase test to butter, B., 904.

Cruglicov, G., tin in Rumania, A., 1089. Cruickshank, E. M., feeding of different

fats to poultry, B., 1126. See also Halnan, E. T.

Cruickshank, G. Sce Stimmel, B. A. Cruickshank, J. H. See Gray, F. W.

Cruickshank, L. See Howes, R. T. Cruikshank, D. B. See Grandison, W. B.

Crumpler, C. J. See Anderson, K. D. Crundall, S. F. W., and Spence & Sons, Ltd., P., titanium compounds, (P.), B., 1039.

Crystalite Corporation of America. See Wasum, L. W.

Crupi, F. J., and Behr-Manning Corp., [waterproof] abrasive fabric, (P.), B., 405. Cruse, K., and Schubert, H., spectrographic determination of lead in blood, A.,

1284.See also Stoermer, R.

Cruto, A. See Serono, C.

Cryden, D. S. See Fenske, M. R. Csagely, J., evaluation of bitumens used

in road construction on basis of absolute viscosity, B., 194.

Cśaki, L. See Bienenstock, M. Csalán, E. See Hofmann, U. Csar, E. Seo Maas, F. J.

Csech, A. G. See Bissonnette, T. H. Csiky, J. von, chemical nature and im-

portance of the colloidal fraction of soils, B., 163.

Csipkay, K. von, Csipkay, R. von, Mikuleczky, F., Mikuleczky, E., and Piette-Rivage, L. von, tissue paper, (P.), B., 187.

Csipkay, R. von. See Csipkay, K. von. Culbertson, C. C. See Kirk, W. G., and Thomas, B. H.

Culbertson, J. B., and Hines, L., hydrolysis of phenyl furyl ketimine: relative

negativity effect, A., 34.
Reynolds, W., and Main, C., hydrolysis velocity of ketimines: sterie hin-

drance offect, A., 34.
Culbertson, J. L. See Bartell, F. E.
Culbertson, J. T., and Talbot, S. B., new antagonistic property of normal sera: the cercaricidal action, A., 358. Cullen, G. E., Nelson, W. E., and Holmes,

F. E., kidney function in children. I. Urea clearance values (a) with no evidence of kidney disease, (b) after acute hæmaturic nephritis, (c) in tho acute stage of the nephritis, A., 1541. See also Robinson, H. W.

Cullen, J. R., electric dry cells, (P.), B., 1164.

Cullen, W., and Lambert, J. E., explosives and their use, B., 253.

and Lavers, H., flotation as applied to chemical industry, B., 175.

Cullick, W. H. E. See Edwards, C. A. Cullimore, O. S. See Blatherwick, N. R. Cullinane, N. M., and Davies, C. G., synthesis of heterocyclic compounds, A., 1518.

Davies, C. G., and Davies, G. I., substitution derivatives of diphenylene sulphide and diphenylene sulphone, A., 1518.

Culling, C. R., Baernstein, M. A., and Nat. Pigments & Chem. Co., treatment of ferrous metals, (P.), B., 375.

Culp, F. B., and Copenhaver, J. E., loss of iron, copper, and manganese from vegetables cooked by different methods, B., 217.

Culp, W. V. See Fry, H. S.

Culpepper, C. W., effect of stage of maturity of snap bean on its composition and use as a food product, B., 1231.

Cultrera, R., photochemical reduction of nitrates, A., 1348.

Cumings, G. A. See Sayre, C. B.

Cumings, J. N., and Carmichael, E. A., relationship between sugar and urea contents of blood and spinal fluid, A., 98. Cumming, W. M., chemical reactions under pressure, B., 399.

and Muir, G. D., substituted naphthalenesulphonic acids and their derivatives, A., 601.

Cummings, G. T., and Ivison, N. J., determination of swelling of coals, B.,

Cummings, M. B., Jenkins, E. W., and Dunning, R. G., apple orcharding; winter injuries: grass endurance: irrigation and nitrate [treatment], B., 422.

Cummings, T. See Gen. Chem. Co. Cummins, A. B., and Johns Manville Corp., silicious [kieselguhr] product, (P.), B.,

Cummins, J. E., and Wilson, H. B., preservation of timber against attacks of the powder post borer (Lyctus brunneus, Stephens) by impregnation with

chemicals, B., 499.
Cunliffe, P. W., action of light on wool, B., 404.

Cunning, G. S. See Salvi, J.

Cunningham, G. L., and Mathieson Alkali Works, Inc., sodium carbonate de-cahydrate, (P.), B., 233, 1037. Chlorine dioxide, (P.), B., 789.

Robson, H. L., and Mathieson Alkali Works, Inc., sodium sesquicarbonate and sodium bicarbonate, (P.), B., 232. See also Benton, A. F., and MacMullin,

R. B.Cunningham, I. J., influence of manurial treatment with magnesium on magnes-

ium content of pasture, B., 852. Cunningham, M. M., vitamin-D content of New Zealand fish oils: prophylactic method of biological assay, A., 391. Vitamins in the cult of pigs; vitamin-A and -D content of whole and skim milk, young rye grass, and sun-cured pasture hay, with reference to vitamin require-

ments of pigs, B., 311.

Cunningham, N., preparation of coal for the market, (P.), B., 403.

Peck, C. L., and Champion Fibre Co., treatment of coal, (P.), B., 84,

Cunningham, O. D. See Derby, I. H. Cunnold, F. A., optical system of the

disappearing-filament pyrometer, A., 46. Cuny, L., apparatus for irradiation of liquids, particularly milk, (P.), B., 333.

Cupp, E. E. See Fox, D. L.
Cupples, H. L., wetting and spreading properties of aqueous solutions; oloic acid-sodium carbonate mixtures; mixtures of oleic acid with potassium hydroxide, potassium carbonate, and ammonia, A., 284; B., 508.

Cuppy, H. A., [pneumatic] classifier, (P.), B., 256.

Curatolo, A., in-vitro and in-vivo action of insulin on glycolysis of blood-corpuscles, A., 1399. Glycolytic activity of bloodcorpuscles of normal and diabetic persons, A., 1399.

Curie, M., heterogeneity in crystals and phosphorescence, A., 408. Theories of phosphorescence, A., 548.

Curme, G. O., jun., and Douglas, S. D., resinous derivatives of vinyl alcohol, B., 1217.

Curran, C. E., relations between growth conditions, wood structure, and pulping quality, B., 1085. Curran, S. C., use of high-frequency dis-

charge tubes as electrical counters, A., 1481.

Curran, W.J., and Wenzke, H. H., configuration of mercuric halides, A., 12.

Curry, D. M., nickel in brass-foundry practice, B., 1210.

Curry, O. B. See Rennick, C. A. Curstäedt, V., porous metal bodies, (P.), B., 1212.

Curti, R. Seo Ferrari, A.

Curtin, L. P., breaking of oilfield petroleumwater emulsions, (P.), B., 136.

Curtis, A. L. See Stephenson, H. P. Curtis, B. R. See Bayley, D. S.

Curtis, E. A. See Dinsdale, C.

Curtis, E. C., and Mathieson Alkali Works, apparatus for manufacture of ammonium chloride, (P.), B., 1037.

Curtis, E. D., plastic scaling cement, (P.), B., 161.

Curtis, G. M., Barron, L. E., and Phillips, F. J., blood-iodine. V. Blood-iodine after total thyroidectomy in man, A., 497.

See also Cole, V. V.

Curtis, H. A., and Miller, A. M., [phosphate] fertiliser plant, B., 1011.

Curtis, H. J., electric impedance of injured and sensitised red blood-corpuscles, A., 1399.

and Fricke, H, electrical conductance of colloidal solutions at high frequencies, A., 18.

See also Fricke, H.

Curtman, L. J., and Greenslade, T. B., removal of phosphate ion [in qualitative analysis], A., 951.

Curtis, L. R. Sec Stark, C. N.

Curtis, T. S., and Vitrefrax Corp., fused amorphous ceramic composition [mull-

ite], (P.), B., 147. Curtis, W. C., Cameron, J. A., and Mills, K. O., exogastrulation in amphibia after

X-ray exposure, A., 888.

Curtis Lighting, Inc. See Langdon, S. C. Curtiss, L. F., forceps for handling radio-

active substances, A., 1481.

Curtius, H., and Danin, L., manufacture of curative sera, vaccines, and preparations from animal organs, (P.), B., 1129.

Curtman, L. J., and Polachek, A. A., systematic detection of acctate, A., 744. Curwen, M. D., naphthenate driers, B., 160.

Cusmano, S. See Angelieo, F. Custer, E. B. See Jephson, A. C. Custers, J. F. H., and De Boer, J. H., light absorption of adsorbed p-nitrophenol, A., 921.

Cuta, F., and Kamen, K., universal indicator for the range $p_{\rm H}$ 1·2—12·7, and its use in volumetric analysis, A., 950.

Cuthbert, F. P., Ivy, A. C., Isaacs, B. L., and Gray, J., relation of pregnancy and lactation to extirpation diabetes in the dog, A., 1408.

See also De Takáts, G. Cuthbert-Smith, A. G. See Imperial Chem. Industries.

Cuthbertson, C., and Cuthbertson, M., refractive index of gaseous heavy water, A., 1183.

Cuthbertson, D. M., storage of photographic material, B., 1019.

Cuthbertson, G. R., and Bent, H. E., single linking energies. IV. V.p. of hexa-

phenylethane, A., 1454. and Kistiakowski, G. B., resonance fluorescence of benzene. II., A., 270.

See also Bent, H. E. Cuthbertson, J. W., load-deflection fatigue test; application to steels, B., 742.

and Waddington, J., study of the cryolite-aluminium oxide cell with particular reference to decomposition voltage, A., 800.

Cuthbertson, M. See Cuthbertson, C. Cuthill, $J_{\cdot\cdot}$, welding hard-facings on drilling tools, B., 501.

Cuthill, R., sorptive properties of silk fibre, В., 1034.

Cutler, C. H. See Deuel, H. J., jun.Cutler, E. C. See Schnitker, M. T.

Cutler, G. H. See Worzella, W. W. Cutler, M., and Owen, S. E., clinical value of prolan A determinations in tetroma

testis, A., 753. Cutler-Hammer, Inc. See Giard, E. A.,

and Schmidt, E.X.

Cutright, C. R., [spray] programme against codling moth in 1933, B., 387.

Cutter, \overline{R} . D. See Cutting, W. C.

Cutting, W. C., and Cutter, R. D., total plasma-protein in normal and fasting rats, A., 495. Plasma-protein regeneration after bleeding in the rat, A.,

See also Newman, H. W., and Tainter, M. L.

Cuvelier, B. V. J., influence of NH₄Cl on solubility of CoHg(SCN), A., 421. Salting out: influence of ammonium salts on solubility of nicotine, A., 1063. Salting-out and salting-in microchemical reactions, A., 1133.

and Bosch, F., influence of foreign ions on the double [zinc] mcrcuric thio-

cyanate reaction, A., 560.

Cuykendall, T. R., use of the Pirani gauge in finding vacuum leaks, A., 47. Absorption of X-rays of wave-length 50 to 150 A. by elements of low atomic number, A., 1040. and Jones, M. T., two-crystal spectro-

meter for X-rays of wave-length 0.030 $< \lambda < 0.21$ Å, A., 46.

See also Jones, M. T.

Cyanamid Co. See Heuser, R. V.

Cymboliste, M., electrolytic tinning, B., 201. Formation and growth of pits in electrodeposited metals, B., 1211. See also Portevin, A.

Cyr, H. M. See Ginder, P. M.

Czapska-Narkiewicz, W., fluorescence and absorption bands of some derivatives of coumarin, A., 405. Czarnetzky, E. J., electro-ultra-filtration

apparatus, A., 305.

Czerny, H. See Koller, G.

Czoniczer, G. See Boros, J. von.

Czukás, Z., daily variations in butter-fat content of milk, A., 500. Variation of the fat content of milk with the time of day, A., 1536. Czurda, V., new autotrophic and thermo-

philic sulphur-bacteria association, A., 248.

D.

Dabholkar, V. D. See Taylor, H. J.Dabrowski, J., and Marchlewski, spectrophotometric micro-determination of zinc in organic material, A., 260.

Dabseh, V., and \overline{V} redenburg, J. C., preventing soaps from becoming rancid, (P.), B., 108.

Dacha, U. See Lippmann, E.

Dachnowski-Stokes, A. P., system of classifying organic soils, B., 657.

Dack, G. M., and Burrows, W., oxidation-reduction potentials of some nonsporulating obligate anaërobes, A., 897. See also Stritar, J.

Da Cruz, A. Sce De Mira, M. F.

Da Cruz Sardinha, O., conversion of siccativo oil into emulsion for application on surfaces of cement, wood, or stucco, (P.), B., 462.

Dadieu, A., Raman effect and its applications in organic chemistry. II., A., 776. and Engler, W., exchange of hydrogen atoms in the methyl group of heavy acetic acid, A., 821.

Dadlez, J., and Koskowski, W., action of extracts of liver and other organs on

fermentation by yeast, A., 381.

Daeves, K., and Eisenstecken, F., acidsolubility and rusting of unalloyed
constructional steels, B., 598. See also Ristow, A.

Dafert, O., Himmelbaur, W., and Loidolt, K., variations of content of medicinal plants during time of vegetation, B., 1068. Da Fonseea, E. T., umbauba ("imbauba"),

Cecropia peltata, A., 652. Daft, F. S., Robscheit-Robbins, F. S., and Whipple, G. H., liver injury by chloroform, nitrogen metabolism, and con-servation; liver function and hæmoglobin production in anæmia, A., 626.

Daggs, R. G. See Day, C. D. M.

Dagneaux, E. L. K., use of aqueous glycerol in f.-p. test for milk, B., 217.

Bacteriological condition of [food] samples from shops' automatic machines, B., 1125. Determination of essential oil content of spices, B., 1128.

Dagnino, A. See Yriat, M.

D'Agostino, O., new artificial radioactive elements. II., A., 265.

and Segrè, E., radioactivity produced in thorium and in uranium by means of neutron bombardment, A., 265. See also Amaldi, E., and Caglioti, V. Dahl, Olle. See Euler, H. von.

Dahl, Otto, and Pfaffenberger, J., special magnetic behaviour of cold-rolled iron-nickel alloys; (development of isoperms), A., 559.

and Pawlek, F., rolling and recrystallisation texture in iron-nickel alloys in relation to magnetic properties, B., 1156. Arrangement and growth of crystal grains in rolled sheet metal, B., 1157.

See also Gen. Electric Co.

Dahlberg, A. C., and Hening, J. C., in-

creasing cream viscosity, B., 426. and Kertesz, Z. I., mechanism of the rennin and pectase (pectin-methoxylase) reactions, A., 518.

Dahle, D., and Wichmann, H. J., quantitative distillation of fluorine, A., 950. Determination of fluorine in presence of a large excess of aluminium ions, A., 950. Dahlen, M. A. See Du Pont de Nemours &

Co., E. I.

Dahlke, W., nuclear vibration bands of solid carbon dioxide, A., 1318.

Dahms, W., determination of dielectric constants and dipolo loss at high frequencies. III. Determinations with sucrose and fructose solutions, A., 549. Dispersion and absorption by viscous liquids at high frequencies, A., 779.

Daikoku, K., variation of blood- $p_{\rm H}$ and blood-gas after injection of sodium

silicate, A., 354.

Dailey, M. C. See Randel, W. S.

Daimler-Benz Akt.-Ges. See Degea A.-G. (Auerges.).

Dain, B., and Schwarz, A., action of inbibitors in the photochemical dissociation of hydrogen peroxide, A., 1214.

Dain, B. J., Granovski, I. V., and Puzenkin, E. S., spectral analysis of complex mixtures, A., 179.

Dainelli, L. Sec Musatti, I.

Dains, F. B., Leo Africanus on alchemy, A., 957.

Brewster, R. Q., and Davis, J. A., decomposition of p-iodoaniline, A., 198. and Eberly, F., p-iodophenol, A., 465.

See also Brewster, R. Q., Davis, J. A., and Grothaus, C. E.

Dairaine, B. See Evers, G.

Daita, K. See Matsuoka, N. Dakin, H. D., Reinccke's $NH_4[Cr(NH_3)_2(SCN)_4],H_2O, A., 575.$

Dalbert, R., determination of residual solvent in B powders; air-drying and steeping, B., 764.

Dalby, G. See Hoffman, C.

Dale, A. S., relation between metabolic processes and the vontricular electrogram, A., 508.

and Narrayana, B., observations on perfused lungs of guinea-pigs, A., Dale, C., and Shriner, R. L., 2-bromo-9-nitrofluorene and 2:2'-dibromo-9:9'-dinitro-9:9'-difluorenyl, A., 1240.

Dales, B. See Du Pont de Nemours & Co., E. I. D'Alessandro, G., and Petrucci, S., influenco of fatty acids on blood-glycolysis, A.,

and Sofia, F., adsorption of antibodies from syphilitic and tuberculotic sera,

A., 224.

Dalfsen, J. van. See Dow Chem. Co.

Dalin, M. A., and Gutiria, V. S., preparation of othyl alcohol from petroleum gases, B., 535.

See also Gutiria, V. S.

Dallaporta, N. Sce Specchia, O.

Dalla Volta, A., genesis of proteins of blood-plasma. I. Variations in albumin and globulin in course of plasmaphoresis. II. Restoration of serum-proteins after reneated plasmaphoresis. III. Importance of bone-marrow in synthesis of serum-albumin, A., 222.

Daller, W., dependence of detection of carbon monoxide with palladium salt solutions on various additions, A., 42.

D'Allessio, R. C. See Sanchez, J. A.

Dalma, G., alkaloids of Erythrophlæum guineense, A., 350.
Dalmas, D. C., and Stathis, E. C., prepar-

ation of colloidal gold, and its detection

in very small quantities, A., 1066.

Dalmatov, V. A., "proto-acid" of the field nut, A., 1037. Preparation of pure proto-acid from peas on a semiplant scale, A., 1038.

See also Tschukitscheva-Fedorova, M. N.

Dalmau, L. M. See Asenjo, C. F. Dalmon, R., heats of mixing of anhydrous sulphuric and nitric acids, A., 1192. Nitration of cellulose by nitrogen pentoxide vapour, B., 184.

Chédin, J., and Brissaud, L., nitration of cellulose with nitrogen pentoxide, B.,

Daló, H. R., blood-sulphur, A., 1284. Dalton, J. B., and Schmidt, C. L. A., solubility of d-valine in water, A., 790. Dalton, R. H., extraction and analysis of

gases from glass, B., 102.

Daly, I. de B., Peat, S., and Schild, II., release of a histamine-like substance from lungs of guinea-pigs during anaphylactic shock, A., 1140.

Daly, J. W., paragenesis of the mineral assemblage at Crestmore, Riverside County, California, A., 50.

Daly, R. A., densities of rocks calculated from their chemical analyses, A., 184.

Dam, H., and Schonheyder, F., occurrence and chemical nature of vitamin-K, A., 907.

Schonheyder, F., and Tage-Hansen, E., mode of action of vitamin-K, A., 906. Dam, W. van, and Holwerda, B. J., churn-

ing of butter, B., 426.

Damade, R., Servantie, L., and Ferville, J., determination of hemoglobin in experimental anæmia in rabbits, A., 355.

Damant, E. L., pulverising mills, (P.), B.,

Damboviceanu, A., and Roth, H., metabolism of bacteria in exhausted media and media containing vaccines, A., 1559. and Vasilesco, C., ash of bacteria (Vibrio

choleræ), A., 1561.

Damerell, V. R., and Axelrod, M., areametric analysis; technique in determining small amounts of heavy precipitates, A., 176.

Damhorst, W. S., colouring of bricks, (P.), B., 992.

Damiano, J. B. See Horan, H. A.

Damianovich, H., inertia and chemical activity of the rare gases. VI. Elimination of helium from the compound platinum-helium and from radium salts at different temperatures. VII. Action of helium on bismuth under the influence of electrical discharges at low pressure, A., 680, 1472. Cathodic sputtering, A., 1452.

and Berraz, G., heat of formation of the nitrogen molecule from atoms set free in the thermal decomposition of Pt-N,

A., 1465.

and Christen, C., cathodic platinum obtained in a hydrogen atmosphere, A., 1473.

Sce also Piazza, J.

Damien, M., cleaning of metals with trichloroethylene, B., 551.

Damiens, A., deliquescence and efflorescence, A., 30. Fluorine and its compounds, A., 174.

Damitz, F. M., and Harvel Corp., preparation of resin product from cashew nutshell liquid, (P.), B., 895.

Damköhler, G., velocity of adsorption of gases on porous adsorbents, A., 26. Specific heats of liquid carbon tetrachloride at high temperatures, A., 557.

Dammann, E. See Nord, F. F.
Dammers, B. G. See Keesom, W. H.
Damodaran, M., and Nair, K. R., tannin from the Indian gooseberry (Phyllanthus emblica) with a protective action

on ascorbic acid, A., 911. and Sivaswamy, T. G., precipitation of cystine by phosphotungstic acid, A., 744. Globulin from the cashew nut (Anacardium occidentale), A., 913.

and Srinivasan, M., ascorbic acid (vitamin-C) content of some Indian plant

materials, A., 124.

Damon, E. H., and Cabot Carbon Co., improvement of carbon black, (P.), B.,

Damon, G. H., and Cross, R. C., corrosion

of copper, B., 325.

Damon, W. A., determination of carbon disulphide, B., 869.

and Wylam, B., disposal of gaseous effluents, B., 766.

D'Amour, F. E., and Gustavson, R. G., biological assay of "international standard" cestrin and of certain commercial preparations, A., 1427.

and Kiven, N., harmful effect of certain chemicals on the uterus of the rat,

A., 372.

See also Halpern, S. R.

Damschroeder, R. E., and Shriner, R. L., urethanes as local anæsthetics. III. Alkyl N-8-quinolylcarbamates, A., 1389. Dana, D. W., observing fluorescence, A.,

Dana, L. I. See Carbon & Carbide Chemicals Corp., and Linde Air Products Co.

Danckwortt, P. W., step-photometric measurements of tinctures, B., 75. Luminescence analysis of drugs, B., 428. and Höll, K., occurrence of lead in organs and bones of healthy domestic animals, A., 225.

Danehy, J. P., Killian, D. B., and Nieuwland, J. A., alkylacetylenes and their additive compounds. IX. Reaction of allyl bromide with acetylenic Grig-nard reagents, A., 702.

Danely, J. P., and Nieuwland, J. A., reaction of metal halides with acetylenic

Grignard reagents, A., 1371. Vogt, R. R., and Nieuwland, J. A., reaction of ethylene oxide with acetylenic Grignard reagents, A., 187.

Danès, A. See Langeron, L. Danes, V. Z., structure-capillary viscosi-

meter, A., 47.

Danet, R., colorimetric determination of nitrates in water: influence of chlorides, B., 254.

Danforth, C. H., testicular hormone and Sebright plumage, A., 902.

Danforth, W. E., recovery time of Geiger-

Müller counters, A., 403. and Ramsey, W. E., specific ionisation of cosmic-ray particles as determined by Geiger-Müller counter efficiency, A., 919.

and Swann, W. F. G., deviation in passing through magnetised iron of cosmic-ray charged particles, A., 658. Electrostatic deflexion of cosmic radiation, A., 1046.

Dangerfield, W. G. See Rowe, F. M.
D'Anglada, J. S. See Guzmán, J.
Dangoumau, A., baking value of flours;
measurement of the "body" of doughs
by the "dynamometer," B., 809. Sterols of the unsaponifiable matter of cheese, B., 810. Sce also Denigès.

Daniel, E. von, and Béres, T., lipochromes of human blood-serum, A., 496.

Daniel, E. P., and Rutherford, M. B., effect of home canning and storage on the ascorbic acid content of tomatoes, B.,

Daniel, F. K., Freundlich, H., and Söllner, K., stability of Abiarana gutta-percha latex, B., 1220.

Daniel, H. A., total calcium, phosphorus, and nitrogen content of nativo and cultivated plants in the high plains of Oklahoma; mineral deficiencies which may develop in livestock on emergency feeds, B., 569. Magnesium content of grasses and legumes and the ratios between this element and the total calcium, phosphorus, and nitrogen in these plants, B., 666. Daniel, J., and Cohn, E. J., physical chem-

istry of amino-acids, peptides, and related substances. VI. Densities and viscosities of aqueous solutions amino-acids, A., 562.

Danielli, J. F., lipin films in relation to structure of the plasma membrane, A.,

877. Surface phenomena; films, A., 1458. Daniels, A. L., Hutton, M. K., Knott, E. M., Wright, O. E., and Forman, M., calcium and phosphorus needs of preschool children, A., 512.

Daniels, C. E., induction heating in the chemical industry, B., 747.

Daniels, E.J., hot-tinning of copper, B., 501. Daniels, F. See Gillette, R. H., Hoffman, R. M., and Willard, J.

Daniels, F. H., and Riley Stoker Corp.,

pulverising apparatus, (P.), B., 672. Daniels, H. E. See Mears, R. B.

Daniels, J. (Aachen). See Lipp, P.

Daniels, Joseph. See Fitz, W. Daniels, L. B., tomato psyllid; control of psyllid yellows of potatoes, B., 853.

Jaeger, A. O., and Amer. Cyanamid & Chem. Corp., colour, plastic, and coating compositions, (P.), B., 110. Salts of ketoaromatic acids, (P.), B., 685. Phthalic acid, (P.), B., 921.

Daniels, T. C., dialkylaminoacetylcarbamides, A., 829.

Danielson, I. S., presence of creatinine in blood, A., 496.

Danielson, R. R., effect of clays on opacity of white enamel for sheet steel, B., 408.

Danielson, W. H. See Muntwyler, E. Danilevski, L. P., composition of Artemisia terræ-albæ, A., 1306.

Sco also Tsukervanik, I.

Danilina, M. I., determination of yield of butadiene, amount of alcohol decomposed, and amount passing through, during continuous operation of the contact oven, by taking samples of gas and condensate at the same time, B., 631.

Daniloff, B. N. See Herty, C. H., jun. Danilov, S. N., and Gachokidze, A. M., isomerisation of hydroxyaldehydes. VI., A., 1094, 1363.

and Rizov, S. M., cyclohexylvinylcarbinol, A., 721.

Danilov, V., structure of solutions according to X-ray data, A., 1192.

Danilova, A. K., and Postnikova, A. N., gaseous oxchango in growing ducks, A., 620,

Danilova, E. See Popov, S.

Danilovitsch, A., and Dianina, T., step-wise oxidation of petroleum hydrocarbons, B., 403.

Danilovitsch, V. N., origin of the gold ore of Belaya Gora, on the southern coast of Ochotsk, A., 957.

Daniluschkina, E. I. See Babaeva, A. V.

Danin, L. See Curtius, H.

Daniushevski, J. G. See Naiman, I. M. Dankert, E. G., phytoserology, A., 1033.

Dankov, P. D., theory of heterogeneous catalysis, A., 167.

Dann, W. J., transmission of vitamin-A from parents to young in mammals. Vitamin-A and carotenoid contents of human colostrum and milk, A., 1287.

Dannenbaum, H. See Butenandt, A. Dannenberg, H. Scc Butenandt, A. Dannenberg, S. J. Scc Block, R. J.

Danninger, A., welded [pulp] digester and other improvements, B., 365. Bleaching of wood pulp, (P.), B., 366.

Dannöhl, W. See Köster, W.

Danov, C. G. See Fröschl, N.

D'Ans, J., evaluation of spatial solubility diagrams; parallel projection, B., 541. Dansi, A., and Semproni, A., 2-methyl-1:9-

aceanthrenc, A., 977.

See also Kuhn, R. Dantzig, A. van, easily soluble pudding preparations, (P.), B., 1232.

D'Anvers, R. T. See Andrews, J. C. Danysz, M., and Żyw, M., new radioclement, A., 919.

Daoud, K.M., and El Ayyadi, M.A.S., rôle of vitamin-C in animals resistant to scurvy: effects of insulin and adrenaline, A., 1160.

Daragan, B., refractometric investigations in the series of saturated normal nitriles. A., 271.

Darapsky, A. [with Decker, II., Steuernagel, E., and Schiedrum, O.], preparation of a-amino-acids from alkylcyanoacetic acids, A., 1494.

[with Germscheid, J., Kreuter, C., Engelmann, E., Engels, W., and Trinius, W.], hydrazino-acids. IV., A., 1494. [with Loevenich, J., Creifelds, O., Bellingen, W., Köster, Erwin, Binet, V., Wasserfuhr, H., and Beck, Heinz], hydrazino-acids. V., A., 1507. Darapsky, A., and Gaudian, B., isatdiazide, Ä., 1378.

and Heinrichs, P., C-aminophthalazone and N-aminophthalimidine, A., 1523.

and Stauber, M., hydrazide and azide of 3:4-dihydroxyfuran-2:5-dicarboxylie acid, A., 1515.

D'Arbella, F., and Billi, A., blood-ammonia in eviscerated and anoxemic dogs, A., 1009.

Darby, P. F. See Bennett, W. H. Darby, W. J. See Day, P. L.

Darbyshire, J. A., and Cooper, E. R., diffraction of electrons by metal crystals and by mica, A., 144.

Dargent, M. See Enselme, J.

Dargie, A., composition of Scottish raspberries, B., 617.

Da Rin, C. See Natin, I. Darkis, F. R., Dixon, L. F., Wolf, F. A., and Gross, P. M., flue-cured tobacco; correlation between chemical composition and stalk position of tobaccos produced under varying weather conditions, B., 1177.

See also Dixon, L. F.

Darlow, A. E., Heller, V. G., and Felton, W. R., effect of the ration on wool growth and on certain wool characteristics, B., 43.

Darmois, E., free radicals, A., 51.

Daroca, S. S., process for dyeing and dressing skeins, also applicable to cakes of artificial silk, (P.), B., 452.

Darnell, M. C., jun., and Eisenmenger, W. S., oxidation-reduction potentials of soil suspensions in relation to acidity and nitrification, B., 1115.

Daron, A. See Nottin, P. Darrah, W. A., device for controlling sp. gr. of a gas mixture, (P.), B., 49. and United States Gypsum Co., drying

[of cellulosic] materials, (P.), B., 223. Darrin, M., and Burt Co., Ltd., F. N., composition of matter [containing chlorodiphenyls], (P.), B., 360.

Darrow, D. C., and Cary, M. K., nondiabetic ketosis with acidosis, A., 231. See also Harrison, H. E., and Yannet, H.

Dartnall, H. J. A., Goodeve, C. F., and Lythgoe, R. J., quantitative analysis of the photochemical bleaching of visual purple solutions in monochromatic light, A., 1480.

Darwin, C. G., magneto-optics, A., 13. Inertia of electrons in metals, A., 774.

Darwins, Ltd., and Linley, A., [aluminiumnickel-iron alloys for] permanent mag-

nets, (P.), B., 937.

Darzens, G., and Lévy, A., synthesis of a methyloctahydrophenanthrencearboxylic acid and of 4-methylphenanthrene, A., 70. Preparation of β -1-naphthylpro- β -2-naphthylpropionic, pionic, and β -2-tetrahydronaphthylpropionic acids; synthesis of dihydrophenalone and 5:6tetrahydrobenzindan-1-one, Preparation of halogenomethyl derivatives of naphthalene hydrocarbons; synthesis of 1:2- and 1:4-dimethylnaphthalenes, A., 461. Synthesis of 1:9-dimethyltetrahydrophenanthrene-2-carboxylic acid and of 1:9-dimethylphenanthrene, A., 843. Synthesis of an isomeride of retene: 1-methyl-9-isopropylphenanthrene, A., 1499.

Das, \overline{A} , and De, R, negative ferric hydroxide sol, A., 794.

Das, B., and Sarin, J. L., vinegar from dates, B., 902.

Das, B. M., Dhavale, B. B., and Pal, B. N. curing of hides with different mixtures of sodium sulphate and sodium chloride in comparison with "khari salt, B., 947.

See also Wats, R. C.

Das, D. L., light wave-length measurements with a divergent beam and plane grating, A., 1438.

Das, I. See Yajnik, N. A.
Das, N. See Sen, K.
Das, N. B., components of dehydrogenase systems. XI. Glucose dehydrogenase from liver, A., 519. Detection of adenosinetriphosphoric acid in bottom yeast, A., 639. Amino-acid dehydrogenase. I. Proline dehydrogenase. II. Activator of proline dehydrogenase, A., 894, 1296.

Ghosh, B. N., and Guha, B. C., electro-

dialysis of oxytocin, A., 525.

Das, U. K., application of the hand refractometer in sugar-cane research. II., B., 39.

and Cornelison, A. H., effect of nitrogen on [sugar]-cane yield and juice quality, B., 1061.

Das Gupta, C. R. See Napier, L. E.

Das-Gupta, H. N., organo-arsenic compounds. III., A., 1097.

See also Goswami, M. Das-Gupta, H. P., starches from indigenous grains and tubers. II. Jowar starch. III. Ragistarch. IV. Cassava starch. V. Starches from different varieties of rice. VI. Use of the tintometer in the study of degradation products of starch, B., 757.

See also Sreenivasan, A.

Das Gupta, N. C., effect of progressive ripening of fodders on mineral nutrition of cattle. III. Blood characteristics, A., 628.

Das-Purkayastha, B. C. See Goswami, M.Dasannacharya, B., and Rao, G. S., steady performance of Geiger-Müller counters, A., 1325.

Da Silva, A. C. C., and Dionisio, J. R., chemical analysis of milk, B., 810.

Da Silva, A. M., materialisation of energy of β -rays from radium-C, A., 1043.

Da Silveira Feijó, A. H., rapid determination of sulphur in siderurgical (iron and steel) products, B., 697.

Da Siva, R. A. D., pipi (Brazilian drug), A., 1435.

Datar, A. S. See Meldrum, A. N. Datta, N. C. See Giri, K. V.

Datta, S., and Bose, P. C., vacuum arc spectra of rubidium and lithium, A., 1. and Chatterjee, K. M., characteristics of the long and short spectral lines. II. Silver, zinc, and iron, A., 398.

and Deb, M., paramagnetism. III. Light absorption in paramagnetic crystals and solutions, A., 135. Absorption spectrum and the ground state

of the Co iv ion, A., 920.

Datta, S. C. A., etiology of enzoötic bovine hæmaturia. I., A., 365.

Datta, S. K., colloresin-D, a new thickening agent for printing vat dyes, B., 928.

Dauben, H.J. See Day, J. E. Daubner, W., determination of aluminium in presence of iron, A., 580.

Daudt, H. W., Holt, L. C., Mattison, E. L.and Kinetic Chemicals, Inc., fluorinated acyclic hydrocarbons, (P.), B., 870. Organic fluorine compounds, (P.), B., 870.

Daudt, H. W., Mattison, E. L., and Kinetic Chemicals, Inc., fluorination of carbon compounds, (P.), B., 870. Youker, M. A., Jones, H. L. B., and

Kinetic Chemicals, Inc., fluorine com-

pounds, (P.), B., 870.

Youker, M. A., and Kinetic Chemicals, Ino., organic fluorine compounds, (P.), B., 870. Halogenated ethane derivatives containing fluorine, (P.), B.,

Youker, M. A., Reynolds, H. H., and Kinetic Chemicals, Inc., halogenated acyclic hydrocarbons containing fluorine, (P.), B., 1192.

See also Du Pont de Nemours & Co., E. I. Daugherty, R. L., physical properties of water and other fluids, A., 1331.

Daughters, M. R., and Frosted Food Co., improvement of sweet corn for preserv-

ing, (P.), B., 43.
Daure, P., Kastler, A., and Berry, Henri, Raman effect of ammonia, A., 547.

Dautz, H., testing artificial resins for insulation varnishes, B., 462.

Dauvalter, A. N., crystallisation of pigments in selenium ruby [glass], B., 932.

Dauvergne, J., industrial experience on resistance of steels suitable for high [steam] superheating, B., 839.

Dauvillier, A., photomagnetron and its applications in measuring low light

intensities, A., 581.

Davankov, A. B., Losev, I. P., Fedotova, O. J., Schischkin, S. V., and Grigoriev, A. P., artificial waxes for registration

of sound, B., 419.

Davenport, E. L., and Johnson Bronze
Co., coating of [ferrous-]metal strip [with

brass or bronzel, (P.), B., 153.

Davenport, J. E. See Evans, R. N.

Davey, A. E., and Leach, L. D., toxicity of ammonium compounds to Sclerotium rolfsii, B., 117. See also Leach, L. D.

Davey, D. G., osmotic pressure of contents of the stomach compartments of the

sheep, A., 625.

Davey, W. P., locations of the valency electrons in the carbon atom, A., 13.

See also Haring, W. J., McCormick, W. E., and Waldo, P. G.
Davey, W. S., physical properties of rubber-bitumen mixtures, B., 381.

See also Rubber Producers' Research

David, (Miss) A. W., and Spencer, J. F., magnetic susceptibility of binary alloys of thallium, A., 1455.

David, J. C. See Dey, B. B.
David, K., testosterone, the crystalline male hormone from ox testes, A., 1156. and Freud, $J_{\cdot,\cdot}$, crystalline male hormone from urine, A., 527.

Dávid, L., preparation of decoctions and infusions of ipecacuanha root and of the powdered root of equal activity, B., 906.

David, N. A. See Liere, E. J. van. David, René, dielectric investigations on crystals of Seignette's salt, A., 145, 1055.

David, Robert. See Régnier, J.

David, W. T., temperature and latent energy in flame gases, A., 432. Flame gases in the light of recent research, B., 258.

and Leah, A. S., latent energy in explosions, A., 1343.

Davidov, B., velocity distribution of electrons moving in an electric field, A., 4.

Davidsen, D. See Ulrik, P.

Davidsen, H. See Mannich. C.

Davidsohn, I., saponification and saltingout, B., 557.

Davidson, David, murexide and leucomurexide, A., 1392.

Davidson, Donald, paints, thixotropic and

resilient, B., 1005. Davidson, D. G. See Durrans, T. H.

Davidson, G., Cone, C. N., Laucks, I. F., Banks, H. P., and Laucks, Inc., I. F.,

adhesive, (P.), B., 383.

Davidson, G. F., solution of chemically modified cotton cellulose in alkaline solutions. II. Comparison of solvent action of solutions of lithium, sodium, potassium, and tetramethylammonium hydroxides, B., 734. Molecular structure of cellulose. I. Review of current theories. II. Evidence of the chemically modified cotton celluloses, B., 1034.

Davidson, G. W. See Internat. Combus-

Davidson, H. O., and Viscose Co., precipitation of cellulose acetate, (P.), B., 1146.

Davidson, J., and LeClerc, J. A., variation in mineral content of vegetables, B.,

Davidson, J. N., Kermack, W. O., Mowat, D. M., and Stewart, C. P., fructose metabolism in the intact animal, A., 630. Davidson, J. R., inhibiting development of

tar-carcinoma in mice, A., 364.

Davidson, L. P., and Messner, M. C., concentration of Polish Bleischarley ores,

Davidson, L. S. P. See Ungley, C. C. Davidson, P. B., vegetable parchment, (P.), B., 314. Translucent paper, (P.), B., 314.

Davidson, W., coke research, B., 914. Davies, A. See Dewsbury, W. G.

Davies, (Miss) A. C., production of radiation and ionisation from helium atoms by potassium positive ions, A., 1042. Davies, A. E. Seo Thompson, H. H.

Davies, A. H., composition of matter and treatment of molten [non-ferrous] metals, (P.), B., 239.

Davies, C., [air] filter, (P.), B., 529. Davies, C. B., control of sulphur con-

sumption in manufacture of sulphite pulp, B., 490.

Davies, C. G. See Cullinane, N. M. Davies, C. G. See Culmane, N. M.

Davies, E. A., supervision of a M.A.N. waterless gas holder, B., 1187.

Davies, E. C. See Powell, A. R.

Davies, G. I. See Cullinane, N. M.

Davies, H. R., and Sirian Lamp Co., electrical-discharge devices: lamps, radiations and the control of the control o

ation devices, rectifiers, relays, etc., (P.), B., 748.

Davies, H. T., protective treatment of [ferrous] metal and alloys, (P.), B., 504.

Davies, J. G., Duncan, S., and Yearwood, R. D. E., fractional liming and doubleheating process for cane juice clarification, B., 1119.

Davies, J. R. See Cooley, L. Davies, J. S. H. See Imperial Chem. Industries.

Davies, L. J. See Brit. Thomson-Houston

Davies, O. L., and Horrobin, S., tensilestrength testing [of rubber], B., 945.

Davies, R. J., china clay, B., 497.
Davies, R. L., and Pennsylvania Salt Manufg. Co., depolymerisation and reclamation of rubber, (P.), B., 290.

Davies, R. M., determination of dielectric constants of organic liquids at radiofrequencies. I. Carbon tetrachloride and chloroform. II. Chlorobenzene and ethylene dichloride, A., 271, 779. See also Thomas, I. H.

Davies, W., catalytic combustion of methanc. I., A., 571.

Davies, William, Atkins, G. A., and Hudson, P. C. B., effect of ascorbic acid and indolylacetic acid on regeneration of willow branches and germination, A.,

Davies, W. C., and Othen, C. W., arsonic acids of diphenylene oxide and diphonyl ether, A., 1278.

and Walters, W. P., constitution of some additive compounds of tertiary phos-

phines, A., 218.

Davies, W. L., milk of a typical herd of Shorthorn cows. III. Nitrogen distribution, chloride, lactose, copper, and iron contents over a period of two years, A., 501. Metabolism of betaine and allied tertiary nitrogeneous bases in the ruminant, A., 885. Composition of commercial dried whey, B., 73. Butter industry, B., 952. Effect of coloured wrappers on fat of fatty foods, B., 1015. Crude protein fraction of fish meal and other meat meals, B., 1065.

and Dowden, H. C., betaine content and nitrogen distribution of beet molasses and other beet by-products, B., 854. and Gill, E., fishy flavour, B., 760.

Davignon, E. H., and Gen. Plate Co., plated metal [rolled gold on stainless steel],

(P.), B., 1048. Davis, A. C., and Claborn, H. V., cyanide fumigation of mushroom houses, B.,

Davis, A. H., jun. See Nat. Aniline & Chem. Co.

Davis, D. S., viscosity nomograph for salt solutions, A., 1336. Viscosity nomographs for alkaline solutions, A., 1454. Hydrometric nomographs for acetic acid solutions, B., 309. Sulphur dioxide chart for low concentrations, B., 986.

See also Simerl, L. E.

Davis, F. L., uniformity of soil types: fundamental differences between different soil series, B., 755.

Davis, G. A., and Roadstrum, V. N., reforming of [hydrocarbon] gases, (P.), B., 136.

Davis, G. H. B. See Standard-I.G. Co. Davis, G. L., and Burrows, G. H., equilibrium and free energy relationships in the system acetone-diacetone alcohol, A., 428.

Davis, H., preparation of sterile solutions. II., B., 75. Preparation and preservation of morphine injections, B., 298. See also Berry, Harry.

Davis, H. A., influence of water administration on oxygen consumption rate in shock, A., 1549.

and Dragstedt, L. R., relative significance of electrolyte concentration and tissue reaction in water metabolism, A., 508.

Davis, H. J., and Norris, L. C., effect of process of manufacture on vitamin-B₂ content of dried skim milk, B., 664. Davis, H. M. See Glockler, G., and

Heisig, G. B. Davis, H. P. See Hathaway, I. L., and Whitfield, B. H.

Davis, J. A., and Dains, F. B., alkyl derivatives of aryl-substituted thiazolidones, A., 347.

See also Dains, F. B.

Davis, J. D., and Fieldner, A. C., relation of carbonising temperature and rank of coal to reactivity, electrical conductivity, and hygroscopicity of coke, B., 482.

See also Fieldner, A. C., Holmes, C. R.,

and Reynolds, D. A.

Davis, J. E., in vitro hydrolysis of fats by lipase and bile salts, A., 1556.

and Brewer, Nathan, effect of physical training on blood-volume, hemo-globin, alkaline reserve, and osmotic resistance of erythrocytes, A., 494.

and Hastings, A. B., effect of thyroxine on tissue metabolism of excised

Limulus heart, A., 1426.

Davis, J. G., Cheddar cheese. IV. Lactic acid flora of Cheddar cheese made from clean milk, B., 120. Cheese industry, B., 953.

and Tarr, H. L. A., relation of so-called Streptococcus apis to certain lactic acid streptococci, A., 1560.

See also Mattick, A. T. R.

Davis, J. H., treatment of grain for extermination of insect life therein, (P.), B.,

Davis, J. S., jun., and Delario, A. J., lymph in experimental pneumonia, A., 98.

Davis, K., and Peale-Davis Co., separation of intermixed divided materials, (P.), B., 129.

and McLaurin-Jones Davis, L., decalcomania paper, (P.), B., 982.

Davis, L. D., ash constituents of alternatebearing sugar prune trees, A., 1434. and Moore, N. P., seasonal changes in Bartlett pear-leaves, A., 1432.

Davis, L. L., and Best, R. D., oil volatility directly related to oil consumption, B.,

Davis, L. S. See Spencer, H. W. Davis, M. E., Adair, F. L., Rogers, G., Kharasch, M. S., and Legault, R. R., new active principle in ergot : effects on uterine mobility, A., 376.

Davis, N. J., calcium, phosphorus, and nitrogen retention of children; effects of acid- and base-forming diets, A., 104.

Davis, O. S., nomograph for calculation of mixtures of oleum and sulphuric acid,

B., 737.

Davis, (Miss) P. P., and France, W. G., adsorption at crystal-solution interfaces. VIII. Influence of dyes and other organic compounds on the crystal habits of barium and lead nitrates, A., 283.

See also France, W. G.

Davis, R., acid [treatment of water] before and after zeolite [treatment], B., 430.

Davis, R. F. See Universal Oil Products

Davis, R. O. E., Miller, R. R., and Scholl, W., nitrification of ammoniated peat and other nitrogen carriers [fertilisers], B.,

Davis, S. H., Anderson, C. O., Stengl, R. J., and Ozark Chem. Co., recovery of erystalline salts from solutions, (P.), B., 592.

Davis, T. L., and Constan, N. D., earbamide series. XIII. Nitroalkyl-carbamides and -biurets, A., 1368.

and Wu, L. C., Ko Hung on the yellow and the white, A., 957.

Davis, T. W., free energies, A., 1324.

Davis, W., knitting problems and their repercussions in dyeing, B., 58. [Viscose] staple-fibre yarns [in knitting], B., 93. Cellophane filaments and strips in knitted goods, B., 979.

Davis, W. A., and Malthy, J. G., risk of error in determining traces of arsenic in organic and inorganic materials, A., 443.

See also Distillers Co. Davis, W. F., Hitchens, G. E., and Nat. Tube Co., steel, (P.), B., 415.

Davis, W. N. See Farrington, B. B., and Standard Oil Co. of California.

Davis, W. R. See Morrell, R. S.

Davis Emergency Equipment Co., Inc. See Jenness, L. G., and Weiss, J. M. Davis, Inc., N. K. See Mason, A. E.

Davson, H., permeability of erythrocytes. III. Cation content of erythrocytes of rabbit's blood in hyper- and hypotonic sera, A., 621.

Duke-Elder, W. S., and Benham, G. H., ionic equilibrium between the aqueous humour and blood plasma of cats, A.,

Davson, J., tissue response to subcutaneous injection of cod-liver oil, A., 1551.

Davuidova, A. F. See Dobrjanski, A. F. Davuidova, M. I. See Favorski, A. E. Daw, B. G., electroplating apparatus, (P.),

B., 1000. Dawe, A., and Potter, N. M., sampling of coal in the laboratory with the "cas-

cade" sampler, B., 624.

Dawihl, W., standardisation of testing of enamels against chemical attack, B., 320.

Dawsey, L. H., determination of the less refined mineral oils on leaf surfaces after spraying, B., 853. Hydrogen peroxide process, (P.), B., 1039. See also Cressman, A. W.

Dawson, D. J., and Milne, A., hyper-glycamia in fasted rabbits following injury in the pituitary region, A., 1141.

Dawson, H. M., and Pycock, E. R., elimination of chlorine in hydrolysis of aqueous solutions of chloroacetic acid and chloroacetates, A., 296. Course of reaction in alkaline hydrolysis of solutions of sodium chloroacetate, A., 433.

See also Brooke, H.

Dawson, J., determination of free cyanide in cadmium-plating solutions, B., 890. See also Ferranti, Ltd.

Dawson, J. B., Aschheim-Zondek [preg-

nancy] test, A., 1542.

Dawson, J. R., welding of chromium steels in chemical plant equipment, B., 278.

Dawson, T. R., sprayed rubber. III. Accelerated ageing tests, B., 244. Inflammability and fireproofing of rubber, B., 289. Evolution of rubber in discrete particle form, B., 561. Dawson, W. M. See Roberts, E. Day, A. R. See Bateman, R. L.

Day, C. D. M., Daggs, R. G., and Sedwick, H. J., high-sugar diets and dental caries in the white rat, A., 1407.

Day, D., calcium deficiency effects on Pisum sativum, A., 395.

Day, H. G., Kruse, H. D., and McCollum, E. V., magnesium deficiency in animals. VII. Effects of magnesium deprivation, with a superimposed calcium deficiency, on the animal body, as revealed by symptomatology and blood changes, A., 238.

Day, J. E., preparation and catalytic oxidation of pure amorphous carbon, B., 305. and Robey, R. F., catalytic oxidation of carbon, B., 675.

Robey, R. F., and Dauben, H. J., catalytic oxidation of carbon, A., 168.

Day, P. F., preservative treatment of pit timber, B., 791.

Day, P. L., and Darby, W. J., cataractpreventing vitamin (flavin) in cheese, B., 1230.

Day, R. B. See Universal Oil Products Co. Dayal, V. See Ray, R. C.

Dayan, F. See Woog, P.

Daynes, H. A., internal heating of ebonite during vulcanisation, B., 32. See also Church, H. F

Dayton, R. W. See Lorig, C. H.
De, H. P., production of positrons from
bismuth, A., 656.

De, N. K., properties of carotene and lycopene, A., 1369.

De, P. K., and Sarkar, S. N., transformation of nitrate in water-logged soils, B., 1170.

De, R. See Das, A. De, S. See Mitter, P. C.

Deaglio, R., thermo-electric and voltaic properties of normal and abnormal metallic films, A., 556. Pharrier layer effect, A., 665. Photo-electric

Deakin, A., induction of mammary ducts,

A., 763.

De Almeida, A. G., photometrio determination of $p_{\rm H}$, A., 176.

De Almeida, O., Mexican poppy, Argemone

mexicana, L., A., 652. De Amilibia, E., Mendizábal, M. M., and Botella-Llusiá, J., ovarian hormones and carbohydrate metabolism. I. Ovarian hormones and blood-sugar. II. Effect of ovarian hormones on liver-glycogen, A., 644. Ovarian hormones and carbohydrate metabolism, A., 1030.

Dean, H. C., is there a deficiency of available potassium in so-called alkali soils of Iowa? B., 35. Effects of liming on liberation of potassium in Iowa soils,

Dean, H. L., and Walker, R. H., comparison of different types of glass electrodes for determining $p_{\rm H}$ of soils, B., 34. Bacteriological and chemical effects of calcium- and magnesium-limestones on certain acid Iowa soils, B., 852.

Dean, H. T., Dixon, \hat{R} . \hat{M} ., and Cohen, C., mottled enamel in Texas, A., 364.

Dean, J. D., emulsifiers, (P.), B., 49.

Dean, L. A., and Truog, E., determination of manganeso and magnesium in soils and silicate rocks, B., 114.

Dean, P. M., and Wolf, W. I., action of

chloral on magnesium β -phenylethyl, y-phenylpropyl, and δ-phenylbutyl bromides, A., 456.

Dean, R. S., and Gross, J., pulverisation of mineral substances or aggregates, (P.), B., 577

Dean, W. A. See Aluminium, Ltd., Aluminum Co. of America, and Kempf,

Dean, W. J., articles from [rubber] latex,

(P.), B., 338. Dean, W. T., and Calicel Products, Inc., insulating and sound-absorbing building material, (P.), B., 696.

Deanesly, R., response of immature rats

to various gonadotropic substances, A., 388.

and Parkes, A. S., male hormones and accessory substances, A., 763.

Deanesly, R. M. See Shell Development Co. Dearborn, F. E., homologues of Paris green. I. Lower members of the acetic series, B., 584.

Dearborn, R. J. See Texas Co. Dearing, M. C., and Economy Fuse & Manufg. Co., mouldable urea-formaldehyde reaction product, (P.), B., 1110. Water-insoluble urea reaction products, (P.), B., 1110.

Dearnaley, S. See Premier Waterproof & Rubber Co.

Dearstyne, R. S. See Kelly, J. W.

Deb, M. See Datta, S.

"Deback" Deutsche Backmittel G.m.b.H. See Quaschning, C. G.

De Backer, P. J. See Tyberghein, E. C. E. De Balsac, F. H. See Labré, H.

De Bats, E. A., [moulds for] casting of refractory metals, (P.), B., 234.

De Bats, J. H. L., centrifugal casting of [tungsten] carbide and similar materials, (P.), B., 1049.

De Baufre, W. L., dissociation of products of combustion, A., 563. Separation and purification of helium from a gaseous mixture, (P.), B., 594.

De Beco, P. See Jolibois, P.

De Beer, E. J., Buck, J. S., Ide, W. S., and Hjort, A. M., relative hypnotic effects of aryl- and unsymmetrical arylalkyl-

thiocarbamides, A., 977.

De Bence, S. B. See Wallis, J. S.

De Benedetti, S., omission of positrons by a source of Th-B+C, A., 400. De Beukelaer, F. L. See Industrial

Patents Corp.

De Biasio, B., pharmacology of the vegetative nervous system. IV. Point of attack of 2:4-dinitrophenol, A., 373.

De Block, F., determination of surface tension of saturated aqueous solutions, A., 306.

De Boer, A. G. See Bonney, R. D.

De Boer, J. See Michels, A.

De Boer, J. H., influence of van der Waals forces and primary linkings on binding energy, strength, and orientation. with special reference to artificial

resins, A., 272. Burgers, W. G., and Fast, J. D., transition of hexagonal a-titanium into regular β -titanium at a high temper-

ature, A., 930.

Clausing, P., and Fast, J. D., $\alpha-\beta$ transition with mechanically treated and with untreated zirconium, A.,

and Fast, J. D., diffusion of water vapour through copper, A., 281. a-\beta Transition in zirconium in presence of hydrogen, A., 810. Influence of oxygen and nitrogen on the α - β transition of zirconium, A., 1056.

and Kraak, H. H., electrical conductivity of thin metals, particularly of molyb-

denum layers, A., 1446. and Veenemans, C. F., adsorption of alkali metals on metal surfaces. VI. Selective photo-electric effect, A., 25.

and Verwey, E. J. W., energy and structure of the molecules of alkalineearth oxides, A., 1052.

See also Custers, J. F. H., Holst, G., N. V. Philips' Gloeilampenfabr., and Verwey, E. J. W.

De Bourgogne, H. See Hoffman, G. C. De Braaf, W., and Ornstein, L. S., lightscattering of crystalline-liquid p-azoxyanisole, A., 1445.

Debré, R., Marie, J., and Nachmansohn, D., chemistry of muscle in myopathy, A., 883.

De Broglie, L., theory of the photon and the relativistic wave-mechanics of the system,

De Brouckère, (Mlle.) L., adsorption of electrolytes on crystal surfaces, A., 422, 932. [Theory of coprecipitation], A., 423. Adsorbent properties of barium sulphate, A., 1064. Adsorption of electrolytes by crystalline surfaces. VI., A., 1195.

and Gillet, A., determination of small quantities of water by Crismer's method, A., 41.

De Bruin, T. L., spectrum of trebly ionised argon, A iv, A., 1167.

De Bruyn, C. B. Seo Shell Development

Debuch, C. P., and Amer. Lurgi Corp., separate recovery of volatile metals, non-metals, or volatile or gaseous metallic or non-metallic compounds, (P.), B., 239.

Markworth, E., and Amer. Lurgi Corp., heat treatment of substances in rotary tube furnaces, (P.), B., 351.

De Caraman, M., and Champy, C., action of radium emanation on germination of grains, A., 531.

De Caro, L., amount of vitamin-C required to maintain the normal reducing power of animal tissues, A., 905.

and Beltrami, W., cystine and vitamin-C

deficiency, A., 529.

and Giani, M., diminution of the iodine value of the liver- and adrenal-fats of the guinea-pig in avitaminosis-C, A., 766.

and Speier, I., vitamin-A, -B, and -C content of raw, boiled, and pasteurised milk, A., 528.

See also Biscaro, G., and Scoz, G.

De Caro, M., antirachitic action of the irradiated unsaponifiable fraction of lanoline, A., 1161.

De Carvalho, A. P., 8-diketones and 1:4pyrans, A., 208.

See also Dufraisse, C.

De Celis, M. G., metallic iodochlorides. II., A., 947. Preparation of Bjerrum's green hydrate of chromic chloride, A., 1080.

De Cew, J. A., defibring lignocellulose material, (P.), B., 270.

Dechaume, J. See Hermann, H. Decherd, G. M., jun., Herrmann, G., and Schwab, E. H., experimental hypertrophy with and without digitalisation on creatine content of rabbit hearts, A., 1552.

See also Herrmann, G.

Decker, H. See Darapsky, A.

Decker, J. B., and Clauser, H. C., pyrotechnic device, (P.), B., 173. Pyrotechnic composition, (P.), B., 621.

Decker, S. W. See Lloyd, J. W.

Deckert, H. See Menzel, H.

Deckert, W., micro-determination of morphine in urine, blood, and other biological fluids, A., 652.

De Clerck, A. See Dumont, P. De Clerck, J., bitterness of beer and bitter value of hops, B., 343. See also Tombeur, F.

De Clercq, A., determination of amylolytic activity of pancreatin, A., 520.

Décombe, J., preparation of β -chloroethyl and 8-vinyl ketones, A., 1094.

Decorative Development, Inc. See Pöschel, A. B.

De Coriolis, E. G., Schramm, H. W., and Surface Combustion Corp., heat-treating furnace, (P.), B., 79.

Decourt, \hat{J} ., and Guillaumin, C. O., thyroid diseases and blood-chloride, A.,

value of sugar-factory Decoux, $L_{\cdot \cdot}$ carbonatation scums as fertiliser, B., 293.

Vanderwaeren, J., and Roland, G., value disinfection of beet seed, B., 709.

Decroly, C. See Dony-Hénault, O.

De Degiorgi, A. C., action of sodium methoxide and ammonia on 1:3:5-fluorodinitrobenzene and 3:5-fluoronitroanisole, A., 1374. 3:5-Fluoronitroanisole, A., 1374.

Dědek, J., and Dykyj, J., electric conductivity and viscosity of salts dissolved in solutions of carbohydrates and glycerol, A., 1071. Theory of control of sugar boiling by measurements of electrical conductivity, B., 117. and Ivančenko, D., sweetening-out diffi-

culties in carbonatation, B., 1119.

and Vašátko, J., optimum coagulation with lime [in sugar-juice predefecation], B., 165. Control of the evaporating plant by [sugar] juice gravities, B., 1119.

Dee, P. I., and Gilbert, C. W., disintegration of boron into three a-particles, A.,

773.

De Eds, F., and Eddy, C. W., micro-determination of silicon, A., 1081.

See also Wilson, R. H. Deepwater Chemical Co., Ltd. See Girvin,

Deerr, N., choice of sugar content or

polarisation as a basis for the expression of sugar-house results, B., 1121.

Deese, \tilde{R} . F., jun. See Du Pont de Nemours & Co., E. I.

Defesta, M. J. See Brooks, S.

Deffet, L., piczometric researches. III. Effect of high pressures on the melting curve of binary mixtures, A., 1060. Deffner, M. See Sonderhoff, R.

De Ficquelmont, A. M., neutralisation of aqueous solutions of metaphosphimic and di-imidotriphosphoric acids, A., 566. Hydrolysis of phosphorus dichloronitrides and their amines, A., 690.

De Fleury, R., and Portier, H., complex interdependence of properties of alloys and industrial conditions of their manufacture, testing, and use, B., 995.

De Florez, L., fractionating tower, (P.), B., 432.

See also Texas Co.

De Fonseca, M. M., viticulture and enology; constitution of the grape and the

must, B., 1063. De Fremery, P., effect of di-iodotyrosine on thyroid of the rat, A., 527.

and Denekamp, P.J., lactation and preg-

nancy, A., 763. Kober, S., and Tausk, M., inhibition of æstrogenic effect of follicular hormone by progestin, A., 252.

See also Simpson, S. L., and Tausk, M. De Gaetani, G. F., blood-modifications from administration of indole, A., 358. Action of indole on hydræmia, chloræmia, and

glycæmia, A., 358. Action of indole on dehydrogenating power of tissues, A., 373.

Degard, C., diffraction of electrons by chloroform and its molecular structure: the Urbain and tetrahedral models, A., 144. Study of structure of chloroform by electron diffraction, A., 414. Molecular structure of nitromethaue from electron diffraction by the vapour, A.,

and Grinten, W. van der, apparatus for preparing microphotometer records of electron diffraction photographs, A., 1223.

De Gaugue, C. L. E., jun. See Westinghouse Lamp Co.

Degchi, T., blood-sugar level after sectioning the pancreatic duct in rabbits, A., 622. Sec also Sato, Hiroshi.

Degea Akt.-Ges. (Auerges), [catalytic] exhaust filters, (P.), B., 4.

and Daimler-Benz Akt.-Ges., purification of exhaust gases of internalcombustion engines, (P.), B., 820. and Deuts. Gasglühlicht-Auer-ges., cata-

lysts for removal of odours and poison from the exhaust gases of internalcombustion engines, (P.), B., 957. De Gendre, C., and Bary, P., new insecticide

and anticryptogamic products of nicotine

base, (P.), B., 613.

Degering, E. F., organic laboratory chemistry. VI.—VIII., A., 1359.

De Gier, J., and Zeeman, P., isotopes of nickel, A., 5. Isotopic constitution of iron, A., 130. Eighth isotope of molybdenum, A., 657.

Degman, E. S. See Magness, I. R. De Graaf, J. E. See Dorgelo, H. B.

De Graeve, P. See Fosse, R.

De Granville, J., gelatinisation of hydrocarbon oils, (P.), B., 918.

De Groat, A. F. See McDonald, C. H.

De Groot, W., emission and absorption spectrum of mercury vapour at very high pressures (up to 300 atm.), A., 1168.

De Groote, M., Keiser, B., and Tretolite Co., breaking of petroleum emulsions, (P.), B., 86, 358. Breaking of [waterin-oil-type] petroleum emulsions, (P.), B., 868. Oxidised product of waterinsoluble hydroxylated fatty acids, (P.), B., 1194. Composition of matter [undecoie acid], (P.), B., 1194. Sulpho-fatty body, (P.), B., 1194. Keiser, B., Wirtel, A. F., and Tretolite

Co., breaking of [water-in-oil-type] petroleum emulsions, (P.), B., 1189.

and Tretolite Co., breaking of petroleum emulsions, (P.), B., 261, 681.

Wirtel, A. F., and Tretolite Co., breaking of petroloum emulsions, (P.), B., 86. Breaking of [water-in-oil-typo] petrol-

cum emulsions, (P.), B., 868. De Gruiter, C. S. B. See Büchner, E. H. De Gruyter, J. Sco Michels, A.

Deguide, C., production and use of barium soaps, (P.), B., 942.

Deguide, H., floor, furniture, boot and shoo, polishes, (P.), B., 159.

De Haan, K., green-manuring test [for sugar beet], B., 611.

De Haas, W. J., and Berg, G. J. van den, olectrical resistance of gold and silver

at low temperatures, A., 929. and Blom, J. W., resistance of single crystals of gallium in a magnetic field. III., A., 18.

Blom, J. W., and Schubnikov, L. V., change in resistance of single crystals of bismuth in a magnetic field at low temperatures, A., 18.

De Haas, W. J., and Bremmer, H., determination of heat-resistance of mercury at temperatures obtainable with liquid helium, A., 1059.

and Guinau, O. A., transition of a monocrystalline tin sphere from the superconductive to the non-superconductive state, A., 556. Transition of a tin sphere from the non-superconductive stato to the superconducting state, A.,

and Wiersma, E. C., determination of the thermodynamical temperature scale below 1° abs., A., 930.

See also Bremmer, H., and Jonker, J. M. C.

De Haven, J. C. See Seltz, H. Dehio, H. Seo Schilling, A. Dehio, W., detection and approximate

determination of acctone in urine with p-nitrophenylhydrazine, A., 1013.

Dehlinger, U., affinity in Hume-Rothery phases, A., 13. Electronic configuration of superconducting metals, A., 148.

Mechanism of precipitation [in silver-copper alloys], A., 152. Intermetallic compounds and mixed crystals, A., 789. Crystal structure and ferromagnetism of the transition metals, A., 1187. Thermodynamic extension of the diffusion equation, A., 1341. Volume changes in magnetising and Invar alloys, B., 1156. Mechanism of precipitations and transformations [in metals and alloys], B., 1157.

Dehmel, R. C. Sco Fink, C. G. De Hoffmann, C., and Barbier, E., synthesis and refractometric study of saturated a-methylnitriles, A., 1368.

De Hulster, J. See Waterman, H. I.

Deibel, G., laboratory apparatus for uso in [noxious] distilling or evaporating operations, (P.), B., 722.

Deichmann-Gruebler, W. See Oettingen, W. F. von.

Deichsel, S. Sco I. G. Farbenind.

Deighton, T., precision thermostat for the temperature regulation of a room, A.,

Deimel, C., spark potential of pre-ionised glow discharges, A., 1169.

Deines, G., examination of ashed and unashed [soil and plant] substances by electrometric titration, B., 164. See also Kleinschmidt, R.

Deinse, F. van, spontaneous protein flocculation in old, acidified cultures of human B. tuberculosis in Sauton's medium and its acceleration by heat,

A., 1155.

See also Berthelot, A. Deischer, C. K., and McNabb, W. M., determination of calcium and phosphate

content of bones, A., 95.

Deisenroth-Missovski, M. J., Latischev, G. D., Russinov, L. I., and Eichelberger, R. A., transformation of boron by slow neutrons, A., 773.

Deisinger, W., effect of test conditions on results of the Mylius [corrosion] test, B., 1161.

Deiss, E., and Leysaht, H., determination of tellurium in steel, B., 840.

Deitsch, J. M. See Adadurov, I. E. Deitschman, E. N., determination of small amounts of nickel and cobalt in iron ores, B., 63.

Deitz, V., hydrocarbon linking additivity, A., 14. Vapour pressure of potassium chloride and cesium iodide crystals, A., 1331.

De Jahn, F. W., and Bower, F. A., apparatus for forming nitrogen oxides, (P.), B., 693.

and Jenssen, J. D., [liquid] sulphur dioxide, (P.), B., 453.

Déjardin, G., and Herman, L., fluorescence

of sodium salicylate, A., 547.

De Jong, H. G. B., lyophilic colloids.

XXVI. Coacervation. III. Complex coacervation of the system gum

arabic-gelatin. II., A., 287.
Booij, H. L., and Wakkie, J. G., lyophilic colloids. XXVII. Mechanism of antagonism in mixtures of neutral salts in relation to reversal of charge of phosphatides, A., 1200.

and Dekker, W. A. L., lyophilic colloids. XXV. Coacervation. II. Complex coacervation of the system gum arabic-

gelatin, A., 29.

and Joukovsky, N. I., formation of phosphatide films on cholesterol, A., 1459. Film formation in a mixture of two hydrophilic sols: phosphatides and sodium nucleinate, A., 1462. Sensitisation of phosphatide sols by cholesterol in aqueous media, A., 1462. Inversion point of cholesterol in aqueous suspension by calcium chloride, A., 1534. Inversion point of autocomplex coacervates of phosphatides by calcium chloride as a function of $p_{\rm H}$, A., 1535.

Meer, J. van der, and Baas-Becking, L. G. M., colloid model for illustration of biological processes. I. Triple salt effect in germination of crustaccan eggs and with phosphatides, A., 232.

De Jong, H. L. B., nature and significance of farinography from a colloid-chemical viewpoint, B., 519.

De Jong, H. W. Sec Bataafsche Petroleum

De Jong, W. F., determination of density of grains, A., 446. See also Billiet, V.

De Jongh, S. E., action of sex hormones on the prostate and its accessories in the mouse, A., 528. Paradoxical action of follieulin (menformone) in male animals; effect of male hormone, A., 901.

See also Dingemanse, E., Freud, J., and Heyl, J. G.

Jydske Skærvefabriker, compositions for covering roads, floors, etc., (P.),

Dekeyser, W., practical application of lifting plate method to determination of surface tension, A., 306.

Dekker, W. A. L. See De Jong, H. G. B.,

and Joukovsky, N. I. De Kok, W. J. C., Waterman, H. I., and

Westen, H. A. van, hydrogen value as a means for measuring unsaturation, A., 1228.

De Kokas, E., and De Ludany, G., absorption of villikinin by the intestines, A., 1031.

Kolosovski, N. A., points of intersection of curves representing distribution of solutes between two liquid phases, A., 153. Thermodynamical researches,

and Alimov, A., internal and total latent heats of vaporisation of liquids, and their saturated vapour pressure,

A., 1191.

De Kolosovski, N. A., and Ivanova, E. N., dilatometric studies of pure liquids and azeotropiomixtures, A., 1192.

and Kulikov, F. S., a partition paradox, A., 153. Distribution of saturated monocarboxylie fatty acids between glycerol and other organic solvents, A., 153. Distribution of nicotine between water and organic solvents, A., 1063.

and Levitas, M. O., distribution of hexoic acid between two contiguous liquid

phases, A., 153.

De Kuthy, A., rôle of coacervation in resorption of fats, A., 563. Coacervation in formation of biliary calculi, A.,

De la Borbolla, J. R. See Rodríguez Velasco, J.

De la Cierva, P., transmutation of aluminium by action of fast neutrons, A., 1045.

and Palaeios, J., absolute atomic factors of sulphur and lead, A., 1053.

De Lacombe, J. Sec Portevin, A.

De La Croix, M., paint in the brewery, B.,

De la Cueva, J. G. See under Garcia de la Cueva, J. De Lacy, S. A., viscosimeter, (P.), B.,

Delage, B., lipin-protein complexes and ageing of blood-serum, A., 1283.

Del Aguila, M. N., colorimetric determination of small amounts of cholesterol in blood and other liquids of the organism, A., 536.

De Langavant, C., heat of reaction of cements, B., 836.

Delange, R. See Régnier, J.

De Langen, K. W. See Coster, D.

De Langhe, J. E., electro-chemical theory of photographic development, A., 943. Connexion between exposure and blackening on exposure [of photographic emulsion] to X-rays. Π ., B., 909. Photographic developability, B., 1020.

Delano, J. K., oil-proofing composition [for paper, etc.], (P.), B., 1203.

De la Peña, P., dependence of action of

adrenaline on physiological variables, A., 1020.

Delaplace, R., atomic hydrogen and the disappearance of hydrogen in discharge

tubes, A., 1039.

De Lapparent, J., hydroxides of aluminium of bauxitie clays of Ayrshire, A., 450. Formula and structural scheme of attapulgite, A., 957. Relations of bodies of the sepiolite-attapulgite series to the phyllitic silicates of the mica type, A., 1227. Interpretation of the powder radiograms of crystals by the method used for argillaceous mica slates, A., 1449. Generating media of mont-morillonite and sepiolite, A., 1475.

De Lapparent, P. See Feytaud, J. Delario, A. J. See Davis, J. S., jun.

De la Rivière, R. D., Kossovitch, N., and Ishii, S., hæmolytic power of extracts of various organs, A., 1009. Haptens and inhibition of hamolytic power of certain immuno-sera, A., 1136. Pancreatic hæmolysin, A., 1285. De la Rosa, J. J., and De la Rosa Corp.,

digesting apparatus [for fibrous material],

(P.), B., 588.

De la Rosa Corporation. See De la Rosa, J.J.Delatizky, B. See Schonland, B. F. J.

Delauney, S. See Gosset, J.

De Laval Separator Co. Sec Andersson, G. H., Ashworth, D. I., Flowers, A. E., Lindgren, H. O., Miller, T. H., Strezynski, G. J., and Walch, H.

Delavenna, L., and Maillard, J., electrolytic oxidation of sodium chloride to sodium

chlorate, A., 1076. De Lavergne, V., and Kissel, P., hamolysis and cholesterologenesis, A., 1136.

Kissel, P., Weiller, and Chahidi, H., presence of strychine-barbituric complex in the urine of animals that have received separate injections of strychnine and barbituric acid, A., 754.

Delbart, G., difficulties in preparation of

steel castings, B., 196.

Del Boca, A. D., preparation of alkali ferrates. II. Basicity and chemical properties of ferrates, A., 576.

See also Rossi, L., and Sá, A.

Del Campo, A., and Hoyos de Castro, A., adsorption of zinc sulphide by copper sulphide, A., 932.

and Sierra, F., volumetric determination of orthotungstates with fluorescent indicators, A., 953.

Delcourt-Bernard, E., action of 3:5-di-iodotyrosine in treatment of hyper-

thyroidism, A., 1142.

Deleano, N. T., and Mezincesco, D., action of methyl and ethyl alcohol on enzymes. I. Action on beer yeast and on cytoplasm of castor seeds, A., 381.

De Leenheer, L., new cobalt minerals, A.,

De Leizaola, C., relation between viscosity and concentration of cellulose nitrate solutions, A., 1199. De Lenchêre, R. L. See Stolk, D. van.

Deleo, E. See Oddo, G.

Deleonardi, S., detection of oxytocic, pressor, and diurosis-inhibitory components of posterior pituitary secretion în cerebrospinal fluid, Â., 361.

Delépine, M., preparation and properties of pinonic acid, A., 1114.

and Horeau, A., hydrogenation of ketones in presence of nickel and platinised nickel; influence of alkali, A., 457. Hydrogenation of carbonyl compounds by Rancy nickel covered by metals of the platinum family; influence of alkalis, A., 686.

Labro, L., and Lange, F., dimeride of thiocarbonyl chloride and its derivatives, chloro-oxysulphide, C₂S₂OCl₂, and a new chlorosulphide, C₂S₃Cl₂,

A., 190.

Delfino, V., study of gastric acid secretion by fractional analyses in cases of gastric and duodenal ulcers, A., 367.

Delforge, A., adsorption of alkali and alkaline-earth cations by a colloidal clay medium, A., 933.

Delfosse, J. M., Raman spectra of "heavy" arsine, silicochloroform, and silicobromoform, A., 776.

Delimarski, J. K., preparation of synthetic zeolites, A., 1079.

Dell' Acqua, G., glyco-chloro-proteinæmic eurve in normal and diabetic individuals after injection of posterior pituitary extract, A., 388. Experimental influencing of liver-lipase, A., 633. Humoral distribution of sodium chloride in blood and exudates, A., 750. Blood-sugar, -chlorine, and -protein curves after injection of insulin, A., 763.

Dell' Aquila, A., and Jaia, F., [electrical] conductivity of serum after adminis-tration of calcium and ultra-violet irradiation, A., 621.

Delle, V. A. See Roshevski, L. S. Deller, A. W. See Fues, E.

Dellmeier, W., determination of naphthalone in gases and fuels, B., 726.

Del Mar, W. A., and Harbirshaw Cable & Wire Corp., [insulated] cable, (P.), B.,

Deloffre, G., effect of glycerol and mannose on metabolism of the nucleus in [embryonic cells of] the lupin, A., 767.

Delone, B. N., non-ambiguous system of

crystallography, A., 926.

DeLong, W. A., variations in chief ash constituents of apples affected with blotchy cork, A., 1570.

Delorenzi, E., early stages in formation of the enamel organ, A., 225.

Delorme, G. See Riou, P. Delorme, J. See Riou, P.

De los Santos, M., natural and artificial puzzuolana, B., 836.

De Loureiro, J. A., ultra-violet spectra of tissue extracts and their ascorbic acid content, A., 1033.

Delpech, G., and Soc. Anon. des Manuf. des Glaces & Prod. Chim. de St.-Gobain, Chauny & Cirey, glass and similar products, (P.), B., 60.

Delphaut, J., and Fleurent, S., action of magnesium dithiosalicylate on experimental elimination of cystine, A., 1147.

Del Rosario, M., and Buylla, B. A., humic compounds of primary coal tar, B., 1137. Delrue, G., and Hollebeke, P., blood modifications provoked by subcutaneous

injection of glucose, A., 92. Delsal, J. L., polarimetric study of nickel malate, A., 681. Polarimetric study of

aluminium malate, A., 945.

Delsasso, L. A., Fowler, W. A., and Lauritsen, C. C., protons from disintegration of lithium by deuterons, A.,

See also Crane, H. R., and Fowler, W. A. Deltombe, E. See Ferrero, P. De Ludany, G. See De Kokas, E. DeLury, J. S., geologic deductions from a

thermal equation, A., 1356.

Delvaux, E., composition of plum-kernel and beechnut oils, B., 1215.

Delwaulle, M. L., system bismuth iodiderubidium iodide-water, A., 1464.

See also François, F. Delyon, (Mlle.) M. L., solution of magnes-

ium oxide in magnesium sulphate solutions, A., 1211. Formation of magnesium oxysulphate, A., 1475.

Del Zoppo, R., differential glycæmia in pulmonary tuberculosis following administration of glucose-insulin, A., 1542.

De Mallemann, R., Gabiano, P., and Suhner, F., absolute determination of the magnetic rotatory power of water, A., 551. and Suhner, F., superficial optical properties of spar, A., 415.

Demann, W., comparative investigations on fresh and stored cokes, B., 724.

and Brösse, W., wash-oil problems, B., 773.

and Grimmendahl, F., phosphorus in [coke-oven] tar, B., 483.

and Ter-Nedden, W., phosphorus distribution in products of coke-oven operation, B., 482.

De Marco, R., action of cocaine on fish, A., 376.

Demaree, W. H. See Gardner, J. H. De Mayolo, S. A. See under Antunez de Mayolo, S.

Dembicka, S., influence of temperature on asterism of crystals, A., 668.

De Meio, R. H. See Barron, E. S. G., and

Hug, E.

Dementieva, M. I., and Serebrjakova, E. K., analysis of cracked gases and gaseous synthetic products. I. Determining free chlorine in a gas mixture in presence of dichloroethane vapour. II. Determination of dichloroethane vapour and ethyl chloride in gas mixtures, B., 625.

See also Markovitsch, M. B., and Moor, V. G.

Demény, Z. See Jámbor, N.

Demere, C., preservatives and antitermite protection of timber, B., 103. Demesse, J. Sec Kling, A.

Demeter, K. J., modern heating (pasteurisation) of milk. I. and II., B., 296. (German) standards for bacteriological control of milk, B., 567.

and Schmid, H., behaviour of various lactic acid bacteria in Emmenthal

cheese, B., 250.

Demidenko, T. T., and Popov, V. P., colloid-chemical characteristics of sugar beet as dependent on conditions of growth, B., 1061.

Demidova, M. V. See Viktorov, L. K. DeMilt, C., and Van Zandt, G., diazotisation of weakly basic and insoluble amines; use of pyridine, quinoline, and isoquinoline as solvents for the amines, A., 1502.

Demin, V. I. See Fomin, S. V. Deming, C. L. See Hamilton, J. B.

De Mingo, M., and Thaler, H., determination of free acid in dark coloured liquids, A., 950. Sce also Täufel, K.

De Mira, M. F., and Da Cruz, A., modifications in quantity of some phosphorus compounds in the muscle of the pigeon deprived of its cerebellum, A., 361.

De Miranda, J. See Schlüter, E. D. S. Demjanov, N. J., and Schujkina, Z. I., action of oxidising agents on cyclobutylamine, A., 204. Oxidation of cyclo-

pentyl- and -propyl-amine, A., 977.

Demjanova, N. M. See Mokruschin, S. G.

Demmel, M. See Funk, H.

Demole, V., and Ippen, F., fixation of ascorbic acid in the adrenal and the liver of the scorbutic guinea-pig; determination of the minimum curative dose of l-ascorbic acid, A., 529.

and Müller, H. K., ascorbic acid in lens and aqueous humour, A., 119.

Demolon, A., and Bastisse, E., citrate method for mechanical analysis of soils, B., 246.

Burgevin, H., and Marcel, M., culture of mushrooms on artificial farmyard

manure, B., 116. and Dunez, A., "fatigue" of soils; cause and remedy, B., 850.

De Montaud, G. See Torroja, J. M. Demougin, P., and Landon, M., action of diphenylamine on nitrocellulose during drying and storing of powder B, B., 764. De Moura Campos, F. A., vitamin-B com-

plex in root of the manioc, A., 529. Dempsey, J. E., [aluminium] solder, (P.),

B., 1049. Dempsey, J. M. Sce Jones, Edwin P. Dempster, A., dyeing and finishing of pocketing [fabrics], B., 492.

Dempster, A. J., isotopic structure of iridium, A., 130. Ion sources for mass spectroscopy, A., 305. Mass equivalent of the energy in radioactive transformations, A., 1043. Isotopic constitution of barium and cerium, A., 1043. Isotopic constitution of strontium and tellurium, A., 1043. Isotopic constitution of iron and nickel, A., 1043. Atomic masses of uranium and thorium, A., 1043. New ion source for mass spectroscopy, A., 1084.

Demtschenko, A., purification of cracked benzine with zinc chloride, B., 403.

Denaeyer, M. E., chemical-mineralogical investigation of eruptive rocks of the central Sahara and the Sudan, A., 307.

Dénard, F. See Courmont, P.

Denaro, T. See Costa, D.
De Nayer, P. P. See Fierens, B.
Denberg, J. W. V., apparatus for preventing nuisance in incinerating waste

[refuse] materials, (P.), B., 174. Denecke, W., and Lübcke, E., determin-

ation of electron velocity by means of probe measurements, A., 771.

Denekamp, P.J. See De Fremery, P.Deneville, L., action of ammonia and amines on aryl chlorosulphates and the N-chlorosulphonylsulphonamides, A., 1518.

Dengler, F. S. See Texas Co. Den Hertog, H. J., and Wibaut, J. P., reactivity of bromine atoms in brominated pyridines; preparation of 2:6-disubstituted products of pyridine, A.,

De Niederhausern, A. See Zoccoli, A. G. Denig, F. See Koppers Co. of Delaware. Deniges, Dubaquié, Labat, and Dangoumau, A., flour, B., 809.

Deniges, G., common occurrence of trimercury group (HgX₂Hg₂) in complex compounds of mercury (family of turpeths), A., 301. Weydel reaction for xanthines, A., 353. Formation of carbonyl compounds by the explosive decomposition of nitrie esters, A., 1094: New microchemical reaction for cantharidin, B., 570.

Denis-Lester, L., rising of fat in milk in course of delivery, B., 664. Influence of period of lactation on f.p. of South African milk, B., 666. Seasonal variations in f.p. of South African milk, B., 952,

Denisoff, N. See Pourbaix, Y. Denissenko, J. I., phenylcyclopentane and its behaviour during catalytic hydrogenation, A., 974. Phenylcyclopentylmethane and cyclohexylcyclopentylmethane and their behaviour during catalytic hydrogenation, A., 1098. β-cycloPentyla-phenylethane, β -cyclopentyl-a-cyclohexylethane, γ -cyclopentyl-a-phenylpropy-cyclopentyl-a-cyclohexylpropane, and their behaviour towards catalytic hydrogenation and dehydrogenation, A., 1369. Phenylcyclopentane and its behaviour towards catalytic hydrogenation, A., 1496.

De Nito, G., depressor hormone as origin of protein shock, A., 250. Aminoacidæmia and action of hypotensive substances, A., 1283. Antidotal action of magnesium, hydrazine, and phenylhydrazine thioacetates, and hydrazine sulphate in mercurial poisoning, A., 1417.

See also Aurisicchio, G.

Denivelle, L., o-phenylene sulphate or sulphurylpyrocatechol, A., 1245.

Denman, H. B., friction lining, (P.), B., 579.
Denneen, F. S., and Dunn, W. C., surfacehardening of metal articles, (P.), B., 1161.

Dennett, J. H., pot experiments with padi, B., 1012. Loss of phosphates and ammonia from padi soils kept in the laboratory under anaërobic conditions, B.,

Dennett, P., preparation of pulp stock for delivery to paper-making machine, (P.), B., 142.

Dennison, B. J., and Duplate Corp., laminated glass, (P.), B., 371.

See also Fix, E. L.

Dennison, D. M. See Johnston, M.

Dennison, M. See Korenchevsky, V.

Denny, F. E., gravity-position of tomato stems and their production of the emanation causing leaf epinasty, A., 1035.

See also Miller, L. P.

Denoon, C. E., jun. See Cornthwaite, W. R.

DeNote, A. See Gruber, C. M.

Densham, A.B. See Masterman, C.A. Denstedt, O.F. See Brocklesby, H.N. Dent, C.E. See Imperial Chem. Industries.

Dent, F.J., control of carburetted water-gas

plant, B., 354. Blackburn, W. II., and Williams, N. H., controlled operation of carburetted water-gas plant. II., B., 5.

Dent, L. M. E., and Chapman, L. F. powders for use with molten [type] metals, (P.), B., 553.

Denver Patent Co. See Colburn, E. A.,

Denyes, R. O. See Smith, L. I.

Deobald, H. J., Elvehjem, C. A., Hart, E. B., and Halpin, J. G., availability of calcium salts for bone formation and rickets prevention in chicks, A., 1409.

Lease, E. J., Hart, E. B., and Halpin, J. G., calcium metabolism of laying hens, A., 1412.

De Ong, E. R., Smith, E. B., and Colledge, E. W., insecticide and fungicide, (P.), B., 387.

Depardon, L., Buron, P., and Buron, (Mmc.) P., wines of 1935 from the Centre [Loire, Indre, and Cher] region,

Department of Scientific & Industrial Research, Forest Products Research, properties of home-grown oak, B., 1208.

Fuel Research, hydrogenation-cracking of tars. I. Preliminary experiments, B., 258. Absorbent carbon from coal, B., 914. Report of test on a retort of the Coal Research Syndicate, Ltd., at Mansfield Colliery, Mansfield, Nottinghamshire, B., 1136.

Illumination Research, transmission of light through window glasses, B., 454. Water Pollution Research, [eighth

annual] report for year ended June 30, 1935, B., 174.

De Passillé, A., ammonium salts of arsenie, phosphoric, and antimonic acids, and direct determination of heats of oxidation of arsenic, A., 301.

Depew, H. A. See Eide, A. C., and Stutz, G. F. A.

De Phillips, H. A., wood filler, (P.), B., 597. Liquid coating composition, (P.), B., De Pirro, F., determination of dry matter in tomato concentrates, B., 953.

Deplanque, R., sisto- and eleuto-amylase, A., 519, 758.

See also Lampe, B.

Depner, M. See Scheibler, H. Deppe, M. See Reichel, S. von.

Deppeler, J. H., welding electrode, (P.),

De Prado, L., micro-determination of glycerol in fermented beverages, B., 566. Extraction and characterisation of salbrol [nipagin] in wine, B., 566. Detection of mustard oil in wine, B.,

See also Perazzo, A. A. De Rachat, N. G. See Universal Oil Products Co.

Derby, I. H., Cislak, F. E., and Reilly, P. C., treatment of wood, (P.), B.,

Cunningham, O. D., and Reilly, P. C., [collector for] froth flotation, (P.), B., Ì54.

and Reilly, P. C., electrothermic process of shaping wood, (P.), B., 63.

Derby, $J. \hat{H}$., [fusible] alloy, (P.), B., 330. Derbyshire, J. A., carbonisation control, and production of high thermal yield, B., 353.

Derbyshire, S. F. See Brit. Aluminium Co.

Derevjankin, S. See Jacyna, V.

De Rewal, F. J., and Atmospheric Nitrogen Corp., nitrogen insecticide and method of use thereof, (P.), B., 1172. Oxidation of hydrocarbons, (P.), B., 1195.

Deribas, D., and Kornmann, J., variations in the catalase content of human blood, A., 627. Determination of catalase, A., 636.

Deribas, D. A. See Mirlis, D. I.

Déribéré, M., analysis with fluorescent indicators, A., 441. Chelidonine: a fluorescent principle, A., 810. Neville and Winther's acid as fluorescent indicator, A., 810. Fluorescent minerals, A., 817. New fluorescent indicators (naphthionic acid and Schaeffer's salt), A., 1081. Application of $p_{\rm H}$ to mineralogy and geology, A., 1482. Rôle of $p_{\rm H}$ in the [rubber] latex industry, B., 111. Importance of $p_{\rm H}$ in electrophoresis of [rubber] latex, B., 207. Use of Wood's light in measuring impermeability and water-resistance [of films], B., 1056.

Derick, C. G., and Westvaco Chlorine Products, utilisation of galvaniser's waste,

(P.), B., 999.

De Right, R. E., and Wiig, E. O., photo-chemical investigations. II. Photo-chemical decomposition of ethylene iodide in solutions of carbon tetrachloride, A., 171, 688.

Deripe, F. N. van, Billheimer, E. C., and Nitardy, F. W., Nessler's reagent test for

aldehydes in ether, B., 487.

Derivaux, R. C. See Robinson, Charles S. Derjaguin, B., application of force-fields to derivation of special thermodynamic relations, especially a general sorption equation and a new electrocapillary equation, A., 155. Range of action of

surface forces, A., 1325.
[with Obuchov, E.], anomalies of thin liquid layers. III. Ultramicrometric study of solvent envelopes and of the fundamental swelling process, A.,

1459.

Dermer, L. See Fiessinger, N.

De Robles, C. R., and Moles, E., [use of] pyrosulphuric acid as a solvent, A., 943.

See also Moles, E. De Ropp, H. W. See Du Pont de Nemours & Co., E. I.

Derow, H. A., significance of post-operative rises in blood-non-protein-nitrogen, A.,

Derr, R. B. See Aluminum Co. of America. Dershem, E., K X-ray absorption of light elements, A., 128. Shielded-filament X-ray tube for pure X-ray spectra, A.,

De Ruyter, T. H., and Rosenthal, O., primary, secondary, and non-specific effects of experimental A-avitaminosis

in rats, A., 1159.

De Ruyter de Wildt, J. C., silage making with tops and leaves of sugar beet; feeding experiment with mileh cows; comparison with grass silage made by the Dutch method, B., 617. Beet tops and leaves compared with grass silage,

Dervillée, P., Lansac-Fatte, L., and Castagnou, R., variations of blood-sugar in rabbits following subcutaneous injections of phenylhydrazine hydrochloride, A., 496.

De Sabelli, E. di B., and Di Benedetto, E. J., morphine and ether hyperglycæmia in

hypophysectomised dogs, A., 107.

Desai, D. D. See Tawde, N. R.

Desai, K. V. See Patel, C. C.

Desai, P. G., and Patel, A. M., solubility of benzoic and salicylic acids in mixtures

of organic solvents, A., 421. Desai, R. D., valency-deflexion hypothesis, A., 846.

Faroog, M. O., and Hunter, R. F., cyclohexane series. III. 1-Carboxy-3:3-dimethylcyclohexane-1-acetic acid, A., 1251.

and Hunter, R. F., multiplanar cyclo-hexane rings, A., 204. Non-existence of multiplanar cyclohexane rings, A., 1377.

Hunter, R. F., Khan, G., and Saharia, G. S., isomeric 1-carboxy-4-, -3-, and -2-methylcyclohexane-1-acetic acids, A., 846.

See also Bukhsh, M. W.

De Saint-Rat, L. See Bertrand, G.

Desaive, P., effects of fractional doses of prolan and X-rays in association on the morphology of the ovary of the adult rabbit, A., 888. Action of X-rays and prolan on the ovary of the adult rabbit, A., 888.

De Salas, E. See García Banus, A., and Ingold, C. K.

De Samsonow, A., laminated wood products, (P.), B., 1043.

Deschalit, G., low-temperature carbonis-ation of Ukrainian brown coals with catalytic cracking of carbonisation products in gaseous phase, B., 83. Reducing phosphorus content of coals and coke mixtures of the Don basin, B., 258. Determination of reactivity of coke by titration with potassium permanganate, B., 625.

and Prosvirnina, N., modification of graphite and amorphous carbon in coke, B., 964.

Prosvirnina, N., and Gurevitsch, A., determination of phosphorus in coal and coke, B., 530.

Deschalit, N. See Vassiliev, P.

Deschaseaux, R., isotonic solutions of colloidal silver, A., 1436.

De Schuttenbach, Y., β-arylacrylic compounds, A., 1107.

Deshusses, L. A., and Corbaz, J., analysis of "soluble" carbolineums. I. Retention of ether by hydrocarbons, phenols, and bases. II. Fractionation of oily constituents by distillation, B., 227.

De Simo, M. See Bataafsche Petroleum Maats.

Désirant, M., and Duchesne, J., molecular spectrum of sulphur vapour, A., 537. and Minne, A., fluted bands of tellurium vapour, A., 654. Fluctuation bands of the vapour of diatomic tellurium,

A., 1040. See also Rosen, B., and Swings, P. Deslandres, P. See Effront, I. A.

Desmaroux, J., Vandoni, R., and Petitpas, (Mlle.) T., adsorption of cyclopentanone by cellulose nitrate, A., 154.

Desmet, F. See Piraux, E.

De Smet, M., sensitisation and protective action of starch on negative sols, A., 1068.

Desmule, R. See Douvre, J. Desnuelle, P. See Fromageot, C.

Desole, L., action of adrenaline and extracts of adrenal cortex on growth of Hyacinthus orientalis, A., 1034. Modifications in the root (especially root-tip) of Hyacinthus orientalis grown in solu-tions of adrenaline and adrenal cortex extracts, A., 1034.

De Souza, D., and Hocking, F. D. M., changes in coagulability of the blood produced by citric acid and some of its decomposition products, A., 497. Effects of sodium citrate on alkaline reserve and coagulability of the blood, A., 497.

Desparmet, E., polymerisation of unsaturated gaseous hydrocarbons at atmospheric pressure and ordinary temperature by the catalytic action of phosphoric oxide and stabilisation of the liquid polymerides by hydrogenation, A., 1485.

Despois, R. See Goissedet, P.

Desreux, V. See Dupont, G.
Dessau, F., effect of the crystalline male hormone on the histological structure of the comb in capons, A., 1301.

Dessauer, H. See Lipp, P. Destouches, J. L., electronic nature of light, A., 660. Properties of the spin of a system of corpuscles, A., 660.

De Stoutz, H. See Guyénot, E. Destriau, G., discontinuous variations of the atomic volume in the solid state and at fusion, A., 1183. Scintillations of zinc sulphides in a-rays, A., 1320.

Desveaux, R. See Lemoigne, M. De Takats, G., and Cuthbert, F. P., effect of adrenal and splanchnic denervation on sugar tolerance of dogs, A., 891.

De Tomasi, J. A., Feulgen reaction, A., 913, 1572.

De Toni, G., organic phosphorus of blood studied by method of prolonged spontaneous hydrolysis, in man and in some domestic animals, A., 357.

and Graf, G., mechanism of spontaneous hydrolysis of organic phosphorus of blood in vitro, A., 1283.

Detracolor, Ltd. See Dietrich, L. M. De Traverse, P. See Rathery, F.

Detroit Electric Furnace Co., cast iron, (P.), B., 1100.

See also Crosby, E. L.

Detroit Moulding Corporation. See Shaw. C. P.

Dettwyler, W. Seo Du Pont de Nemours & Co., E. I.

Detwiler, J. G. See Texas Co.

Deuble, J. L. Sco Nitardy, F. W.

Deubner, A. See Beutler, H.

Denel, H. J., jun., Butts, J. S., Hallman, L. F., jun., and Cutler, C. H., ketosis. VII. Quantitative studies on β-oxidation; glycogen formation from various fatty acids, A., 235.

Butts, J. S., Hallman, L. F., jun., and Murray, S., metabolism of ethyl esters

of fatty acids, A., 1545.

Deulofeu, V., adrenaline in the venom of Bufo arenarum, A., 250. Optical rotation of l-threose, A., 826.

See also Mendive, J. R.

Deussen, E., mono- and sesqui-terpeno series. XI. [Caryophyllenes and related compounds], A., 609.

Deutsch, L., determination of tin in minerals and metallurgical residues by 0.1N-potassium bromate, B., 278.

Deutsch, (Mlle.) V., purification of ultravirus, A., 1029. Adsorption of proteins; crystallised horse hamoglobin; horse serum-albumin, A., 1202.

See also Paic, M.

Deutsch, Walter, and Wilkinson, J. F., "methæmoglobin-production" test for assaying antianæmic potencies of liver extracts, A., 880.

See also Wilkinson, J. F.

Deutsch, Walther. See Internat, Precipitation Co.

Deutsch-Renner, II., nature and properties of odoriferous substances in bread grains, flour, and bread, B., 809.

Deutschbein, O., fluorescenco of rare earths in glasses, A., 1445.

Deutsche Bekleidungsindustrie G.m.b.H., products from cellulose and cellulose

derivatives, (P.), B., 926.

Deuts. Celluloid-Fabrik, sheets from [vinyl] polymerisation products, (P.), B., 110. Textile fabrics coated or impregnated with polymerisation products, (P.), B., 190. Safety glass, (P.), B., 276. Nitrocellulose lacquers, (P.), B., 287. Highly polymerie [polyvinyl] artificial materials and mixed polymerides, (P.), B., 1007. [Increasing colour-stability of] synthetic polymerisates and artificial materials therefrom, (P.), B., 1218.

Deuts. Edelstahlwerke Akt.-Ges., chromium-manganese steel alloy, (P.), B.,

Deuts. Gasglühlicht-Auer-ges. Seo Degea A .- G., Auerges.

Deuts. Gasolin Akt.-Ges., mineral lubricating oils, (P.), B., 731. Regeneration of used lubricating oils, (P.), B., 970.

Deuts. Gold- & Silber-Scheideanstalt vorm. Roessler, stabilisation of chlorinated rubber, (P.), B., 162. Refining auriferous material [coins, jewellery, etc.], (P.), B., 330. Porous masses [of chlorinated rubber], (P.), B., 465. Evaporating and distilling apparatus, (P.), B., 578. [Compositions containing] chlorine derivatives of rubber, (P.), B., 656. Formaldehyde concentrates, (P.), B., 732. Grinding and polishing bodies, (P.), B., 740. Acid anhydrides, (P.), B., 872. Mercaptans and like organic sulphur compounds, (P.), B., 1193.

See also Beck, W., and Schültes, Hermann.

Deuts. Hydrierwerke Akt.-Ges., water-soluble basic azo-dyes, (P.), B., 56, 687. Treatment of textiles, (P.), B., 100. Gelatin products, etc., (P.), B., 113. Purification or reclaiming of used or waste paper, (P.), B., 143. Development of dyeings on the fibre, (P.), B., 189. Finishing and softening of cellulose hydrate films, foils, etc., (P.), B., 190. Treatment of celluloso products, (P.), B., 269. Manufacture or treatment of albuminous artificial masses, (P.), B., 288. Water-soluble organie sulpho-compounds [textile assistants], (P.), B., 441. Manufacture and use of organic condensation products particularly for treatment of textiles, (P.), B., 537, 976. Manufacture and use of textile-treating baths, (P.), B., 591. Manufacture or treatment of lacquers, varnishes, films, plastic masses, or paints, (P.), B., 653. Compounds of heteropolar constitution of high mol. wt., (P.), B., 683. [Basic] azo-dyes, (P.), B., 826. Mercerising lyes, (P.), B., 1149. Resins and resin-like products, (P.), B., 1167. Manufacture or treatment of albuminous artificial masses and articles produced therefrom, (P.), B., 1220.

Deuts. Kunstleder-Werke G.m.b.H., and Simons, P., artificial leather, (P.), B., 1088.

Deuts. Pentosinwerke G.m.b.H., food for poultry, (P.), B., 218.

Deuts. Röhrenwerke Akt.-Ges., plated iron or steel goods, particularly thick iron or steel sheets and sheets of medium thickness, (P.), B., 504.

Deuts. Sojawerke G.m.b.H., a special malt, (P.), B., 614.

Deuts. Stärke - Verkaufs - Genossenschaft.

sweetstuffs, (P.), B., 218. Deuts. Tafelglas Akt.-Ges., improving [chemical resistance of] glass, glazes, and enamels, (P.), B., 1153.

Deux, Y., radioactivity of spring water, A., 584.

Devalle, T., nutritive value of forage at

different stages of growth, B., 617.

De Vaney, F. D., and Cooke, S. R. B., flotation of langbeinito from the potash field of New Mexico and Texas, B., 541.

De Vaney, G. M., and Munsell, H. E., vitamin-D content of calf, beef, lamb, and hog livers, A., 391.

Munsell, H. E., and Titus, H. W., effect of source of vitamin-D in diet of chicken on storage of the antirachitic factor, A., 1430.

and Putney, L. K., vitamin-A and -D content of canned salmon, B., 617.

Devaux, H., transformation of a thin layer of copper sulphide under the influence of metallic copper, A., 435, 687. Determination of thickness of the albumin membrane formed between water and benzene and properties of this membrane, A., 934.

Devaux, J., temperature of atmospheric ozone, A., 306.

Development Associates, Inc., and Strindberg, R., air or gas filters, (P.), B., 624. Devereux, W. C., manufacture and applications of magnesium and magnesium

alloys, B., 326. De Verteuil, J. Sco Pound, F. J. Deveux, J. Sco Schouteden, F.

De Vilbiss Co., preventing offset in printing and material for use in same, (P.), B.,

Devine, J., so-called virtual adrenaline of the adrenal cortex, A., 1425.

Devine Manufacturing Co., Inc., J. P. Sco Pratt. C. J.

De Vito, G. See Parisi, E.

Deviatnin, V. A., and Doroschenko, V. M., chemical method for determining vitamin-C, A., 120.

De Vleeschhouwer, G., action of diethylaminomethyl- (F. 883) and piperidomethyl-3-bonzdioxan on the circulatory system, A., 1292.

See also Regniers, P.

De Voe, C. F., photo-electric properties of zinc, A., 1312.

Devol, L., metastable nuclei produced by the hard γ -rays from radium-B+C, A.,

See also Ruark, A. E.

Devonshire, A. F., rotation of molecules in fields of octahedral symmetry, A., 667. Interaction of atoms and molecules with solid surfaces. V. Diffraction and reflexion of molecular rays, A., 1448.

See also Lennard-Jones, J. E.

De Voogd, J. G., and Linden, A. van der, preparation of pure potassium ferroevanide for standardisation of solutions in determination of Prussian-blue in spent-gas purification masses by the Knublauch method, B., 986.

De Vore, L. T., connecting link between classical electromagnetic theory and wavo mechanics via a derivation of the Schrödinger equations as a boundary value problem on the atom, A., 1176. Correlation between electromagnetic theory and wave mechanics, A., 1316.

Devoto, G., structure of antipyrine [and pyramidono] in aqueous solution, A., 12.

and Ardissone, M., polar structure of betaines. II., A., 562.

Devoto, L., carbon disulphide and adrenals (Addison's disease), A., 363.

De Vreese, A., purification of waste waters containing grease and soap, (P.), B., 1134.

De Vriend, $J.\ A.$ See Liempt, $J.\ A.\ M.\ van.$ De Vries, C. L. See Schreinemakers, $F.\ A.\ H.$

De Vries, G. H., continuous crystallisation in the [sugar-]refining industry, B.,

See also Platte, J. A.

De Vries, J., valency and molecular structure, A., 1051.

De Vries, O., series principle in field trials, B., 611. [Rubber] latex and coagulum,

De Vries, R. P., ferrous alloy [resistant to corrosion], (P.), B., 25. Alloy steel, (P.), B., 376.

De Vries, T. See Wernimont, G. De Vrieze, J. J. See Beintema, J.

De Waal, H. L. See Bertrand, G. R. H. See Nieuwenburg, Dewald,

C, J. van.Dewar, J., and Brough, (Miss) G. W.,

determination of nitrate groups in carbohydrate derivatives, A., 970.

and Gardiner, P. A., quantitative separation of aluminium and beryllium, A., 1221. Dewar, J. S. Sco Leich, W. B.

De Wesselow, O. L. V., and Griffiths, W. J., possible rôle of the anterior pituitary in human diabetes, A., 883.

Dewey, B. T. See Poe, C. F.

De Whalley, H. C. S., determination of water content of molasses and syrups, B., 1120.

Atkinson, J. D., and Tate & Lyle, apparatus for carrying out colorimetrie determinations, (P.), B., 203.

Dewhurst, H. H. See Molyneux, J. De Wijs, J. C., history of the discovery of

element 87, ekacæsium, A., 1171.

De Wilde, R., corrosion of aluminium in breweries, B., 64. De Wildt, J. C. de R., Brouwer, E., and

Dijkstra, N. D., ensiling with and without addition of mineral acids. II., B.,

De Willigen, A. H. A. See Holwerda,

Dewsbury, W. G., and Davies, A., paints, varnishes, printing inks, etc., (P.), B., 286.

Dexter & Sons, Inc., C. H., paper, (P.), B.,

Dey, B. B., preparation of resorcinol methyl ether, A., 200.

and Kantam, (Miss) P. L., cotarnine series. VI. Condensation of cotarnine with carbonyl chloride, A., 1276.

Pillay, P. P., David, J. C., and Rajamanikam, N., chemistry and pharmacological action of Toddalea aculeata, A., 743.

Rengachari, S., and Sitharaman, M. V., peroxidases. III. Potentiometrie determination of activity, A., 1417.

and Srinivasan, T. K., cotarnine series. VII. Action of sulphuric acid on cotarnine: formation of methylenebisphenol-betaine of 6:7-dihydroxy-8methyoxy - 2 - methyl - 3:4 - dihydroiso quinolinium hydroxide, A., 1276.

Deželić, M., fusion curves of mixtures of water and deuterium oxide; solution equilibrium in the system waterdeuterium oxide, A., 30. Molecular compounds of pyrrole, A., 82.

See also Stern, A.

Dezideriev, G. P. See Bogorodski, A.J.

Dhar, J., and Guha, A. C., crystal structure

of pyrene, A., 16.

Dhar, N. R., and Bhargava, P. N., photochemical reaction between sodium formato and iodine, and relation between chemical reactivity and light absorption, A., 171. Chemical reactivity and light absorption, A.,

and Mittra, R. N., condition of iodic acid and iodates in aqueous solution, A.,

and Mukherji, S. K., fixation of atmospheric nitrogen in the soil and utilisation of molasses as fertiliser, B., 246. Denitrification [of soil] in sunlight and its retardation. II., B., 421. Available nitrogen in tropical soils. I., B., 513. Nitrogen fixation and conservation in soil. I., B., 707. Alkali soils and their reclamation. I., B., 897.

and Seshacharyulu, E. V., nitrogen fixation and Azotobacter count after application of molasses and sugar to

soil. I., B., 898.

and Tandon, S. P., oxidation of nitrites to nitrates in sunlight, A., 808. Influence of temperature on nitrogen fixation by Azotobacter, B., 562. See also Palit, C. C.

Dhavale, B. B. See Das, B. M.

Dhéré, C., and Biermacher, O., choice of spectral reference rays in the study of every infra-red region (photographic infra-red), especially for determination of fluorescence spectra, A., 268. Fluorescence spectra of deuteroporphyrin and pyroporphyrin; fine structure, emission in the near infra-red, A., 664. Purification and fluorescence spectrum of chlorophyll-b, A., 923. Application of the diffraction grating to the photographic study of fluorescence spectra, A., 1178. Living geranium leaf emits a fluorescent radiation which extends in the infrared to 830 m μ , A., 1305.

and Raffy, A., fluorescence spectra of chlorophyll pigments, A., 125.

Dhingra, D. R., Uppal, H. L., and Venkataraman, K., antiseptics and anthel-mintics. II. Synthesis of 7-hydroxy-6-benzyl- and -6-n-hexyl-flavone, A., 860.

Dhodapkar, C. R., active nitrogen, A., 810. Diacono, H., immunising power of certain metalloprotein complexes, soluble formed from anti-swine fever scrum, A., 224.

Diakov, F. A. See Hykeš, O. V., and Křiženecký, J.

Diamant, E. See Raudnitz, H. Diamond, G. S., properties and performances of silicon carbide batts in the porcelain and other ceramic industries, B., 1094.

Diamond, V. R., barium silicofluoride as control for cabbage worms (Pieris rapæ, L.), B., 613.

Diamond, W. J., and Sheldrick, W. A., apparatus for evaporating liquids, (P.), B., 816.

Dianina, T. See Danilovitsch, A.

Diascope Corporation, Ltd. See Forde, T.H.

Diaz Villamil, G., gravimetrie determination of barium by weighing as anhydrous oxalate, A., 1082.

Di Benedetto, E. J. See De Sabelli, E. di B. Dicalite Co., calcination of diatomaceous earth, (P.), B., 594*. See also Stockton, M.

Di Capua, C. B., detection of cysteine in presence of cystine, A., 320.

Dick, J., spectrographic analysis, B., 1135. Dick & Co., Ltd., W. B. See Jennings, J. C.

Dickens, F., metabolism of normal and tumour tissue. XV. Respiratory quotient of brain cortex. XVI. Action of some oxidation-reduction systems. XVII. Action of some derivatives of phenazine, quinoline, and pyridine on the Pasteur reaction, A., 629, 884, 1019.

and Weil-Malherbe, H., metabolism of normal and tumour tissue. XIV. Metabolism of medulla of kidney, A., 629. Metabolism of cartilage, A., 1143.

Dickens, P., and Maassen, G., potentiometrio determination of cobalt and manganese with potassium ferricyanide in steels and alloys, B., 840.

Dicker, E., presence of hypertensive substances in dog's blood during permanent compression of the renal arteries, A., 1009.

See also Govaerts, P.

Dickerman, W. C., jun. Sec Chewning,

Dickerson, J. H., cleaning of coal, (P.), B., 776.

Dickey, J. B. See Bullard, R. H., and Hartman, W. W.

Dickey, R. M., granitic sequence in the Southern complex of Upper Michigan, A., 1087.

Dickie, H. A., embrittlement of steel on prolonged heating, B., 500.

Dickie, L. F. N. See Thompson, W. O. Dickins, A. W. M. See Eastman Kodak

Dickinson, R. G., and Nies, N. P., effect of wave-length on iodine-sensitised decomposition of ethylene iodide in carbon tetrachloride solution, A., 171. See also Yost, D. M.

Dickinson, (Mrs.) S. See Astbury, W. T.

Dickson, A. D. See Dickson, J. G. Dickson, J. G., Shands, H. L., Dickson, A. D., and Burkhart, B. A., barley and malt studies. I. Doveloping new varieties of barley for malting and their properties, B., 213.

Dickson, J. V. E. See Barrett Co. Dickson, W. M., and Gen. Chem. Co., insecticide, (P.), B., 423.

Dictaphone Corporation. See Dolid, J.

Diddle, A.W. See Allen, E. Didenko, P.D. See Adadnrov, I.E.

Didier-Werke Akt.-Ges., oven for production of gas and coke, (P.), B., 1078. Treatment of gases evolved in carbonising or gasifying plants, (P.), B., 1189.

Diebner, K., and Grassmann, E., artificial radioactivity, A., 773.

Diebold, C. H., relations between soil type and forest-site quality, B., 562.

Diebold, O., and Mertens, O., central-nervous regulation of the heart minute volume during breathing of air containing carbon dioxide, A., 1549.

Diebold, W. See Wöhlisch, E. Dieck, W., and Schiff, S., bactericidal products, (P.), B., 670.

Diefenbach, A., opening-up cacao beans, (P.), B., 666.

Diehl, F., residual carbon of blood in relation to sensitisation and anaphylactic shock, A., 92.

Moll, H., and Schröder, H., do common liver preparations contain vitamin-C? B., 715.

Diehl, H. C., Campbell, H., and Berry, J. A., freezing preservation of Alderman

peas, B., 472. Diehl, J. M., vegetable chitin, A., 534. and Iterson, G. van, jun., double refrac-

tion of chitin tendons, A., 13. Dicke, G. H., 1X-level of the hydrogen molecule, A., 915.

Diels, O., diene syntheses and selenium dehydrogenation in their importance

for the development of organic chemistry, A., 1488. and Harms, J., syntheses in the hydro-

aromatic series. XXVI. Dieno synthesis of hetero-rings containing nitrogen. II. Adducts derived from isoquinoline and acetylenedicarboxylic esters, A., 1389.

Meyer, Reinhard, and Onnen, O., osazones. II. Structure of "anhydro-osazones" and fission of osazones by bases, A., 1364.

Diels, W. See Leuchs, H. Diemair, W., raspberry control in the Bavarian Forest, B., 467.

and Arnold, F., luminescence phenomena in raisins; melanoidins and flavins in ultra-violet light, B., 346. See also Bleyer, B.

Dienst, C., sodium-potassium antagonism and its significance in water metabolism, A., 1548.

See also Klodt, W.

Dienst, K., drying of grain, (P.), B., 1126.

Diepschlag, E., complete reduction of manganous oxide in liquid iron, B.,

Matting, A., and Oldenburg, G., elasticity relations in welded joints and their resistance to vibratory tensile stresses, B., 323.

Dierker, A. H., and Schneider, R. P., use of cast-iron scrap in the cupola charge,

Diernhofer, K., different effects of some disinfectants on bacterial growth, A., 1424.

Dieryck, J. See Machebouf, M. A. Diesel, N. F. See Eastman Kodak Co.

Diesnis, M., determination of critical hygrometrie states, A., 30.

Dieterich, H. See Gangl, J.
Dieterichs, W., and Lloyd, P., town gas for
vitreous enamelling, B., 434.

Dieterle, H., and Rochelmeyer, H., solanidine t. I., A., 216. Solanthrine. II., A., 216.

Dieterle, R., refining of whale oil, B., 203.

Dieterlen, H., tubular heat exchangers. (P.), B., 1072.

Dietrich, F., use of duty-free fats and oils, B., 799.

Dietrich, G., sizing of yarns, (P.), B., 272. Dietrich, H. See Wieland, H.

Dietrich, K., and Schmitt, K., rapid photometric determination of copper in brass

and related alloys, B., 889.

Dietrich, K. R., and Lohrengel, W., reactivation of carbon used for purification of spirits, B., 566. Necessary alterations in motor spirit composition in consequence of increased methyl alcohol content, B., 728. New [German] regulations relating to composition of motor fuels, B., 866.

See also Fritzweiler, R.

Dietrich, L. E. See Duff, J. D. Dietrich, L. M., and Detracolor, Ltd., colour photography, (P.), B., 668.

Dietz, E. See Westinghouse Lamp Co. Dietz, H. F. See Bousquet, E. W.

Dietz, J. B. Seo Du Pont de Nemours & Co., E. I.

Dietz, K., Frank, K., and Pen-Chlor, Inc., acid-proof mortar for lining cellulose digesters, (P.), B., 149.

Dietz, V., Elliott, E. B., and Boyd, M. C.,

art of printing, (P.), B., 1236.
Dietz, W. See Fischer, Werner, and Rie-

näcker, G. Dietzel, A., clarification of adhesion problem in enamelling sheet iron, B., 370.

Dietzel, R., and Paul, W., aminometry of alkaloids. I. Aminometric determination in anhydrous chloroform solution, A., 219.

and Schmidt, E., constituents of Orthosiphon stamineus, Benth., A., 395.

Dietzler, A. J. See Dow Chem. Co. Digby, W. P., and Patterson, J. W., apparatus for measuring osmotic resistivity of paints, varnishes, and other materials, (P.), B., 847.

Diggs, T. G., and Jordan, L., hardening characteristics and other properties of commercial 1%-carbon tool steels, B., 195.

Dijatschkovski, S. I., electro-capillary method of qualitative analysis, A., 41. Colloid-chemical processes at high temperatures. I. and II., A., 287, 1460. and Ivanova, M. F., uranium colloids.

II., A., 27. Dijck, W. J. D. van, intimately contacting fluids [immiscible liquids], (P.), B., 578. See also Shell Development Co.

Dijk, C. P. van. See Reith, J. F. Dijk, J. A. van. See Imperial Chem. Industries, and Jaeger, F. M.

Dijkin, G. See Backer, H. J.

Dijkstra, K., examination of essential oils by measuring absorption in the ultraviolet, B., 571.

Dijkstra, N. D. See Brouwer, E., and De Wildt, J. C. de R.

Dike, T. W., and Laucks, Inc., I. F., casein glue, (P.), B., 1058.

Dilaktorski, N. A. See Judinson, P. I.
Dill, D. B., Christensen, E. H., and
Edwards, H. T., gaseous equilibria in
the lungs at high altitudes, A., 1399.

Dille, J. M. See Argy, W. P., and Linegar,

Dillehay, E. R., Rieser, O. O., and Richardson Co., [bituminous] composition for storage-battery containers, (P.), B., 560. Diller, I. M., photo-electric colorimeter, A., 1223.

Dilley, A. E. See Mitford, W. B.

Dillinger, J. F. Sco Bell Telephone Labs. Dillon, J. H., impact cutting test for tyretread stocks, B., 244.

Dillon, L., and Union Oil Co. of California, electrical dehydrator [for petroleum emulsions], (P.), B., 1190.

Dillon, T. See Barry, V. C. Dills, C. C., improving ground-water supplies by treatment, B., 46.

Dilthey, W., and Quint, F., [with Knipp, R.], pyronium compounds. XXV. Dehydrenium dyes; new class of carbenium salts, A., 1120.

See also I.G. Farbenind. Di Macco, G., insolation and acidosis, A., 371. Water exchange and fatigue: effect of ingestion of water on tachycardia and hyperpnæa from work, A., 372.

Dimberg, P. C., and Allis-Chalmers Manufg. Co., uniting nickel-chrome-steel turbine blades, (P.), B., 646.

Dimbleby, V., Gill, H. S. Y., and Turner, W. E. S., effects of storage on chemical durability of glass containers, B., 20.

Dimitriu, C. C., and Tanasoka, T., hydrochloric acid and gastric motility, A.,

Dimm, C. M. See Mallett, J. P. Dimofte, N. Sco Vladescu, 1.

Dimov, F. T. See Schujkin, N. I. Dimpker, A. See Schuler, M. Dimroth, K., lumisterol, A., 840.

and Trautmann, G., ergostatriene and Δ^7 -dehydrocholestene, A., 977.

Dimter, A. See Zeynek, R. Dinelli, D., colouring matter of the shell of the cassowary's egg, A., 879.

See also Bonino, \check{G} . B. Diner, I. S., and Nemtzov, M. S., hydrogenation of petroleum residues and tars in

continuously operated equipment, B.,

Dingemans, J. J. J., detection of Akund fibres in kapok, B., 405.

Dingemanse, E. [with Borchardt, H.], influence of menformone treatment on urinary elimination of the male

hormone, A., 1301.

Dingemanse, E., and De Jongh, S. E., action of hormones on the closed vagina, A., 528.

and Freud, J., purified growth-hormone from ox anterior pituitary, A., 762.

Dinger, A. See Fichter, F.

Dingwall, A. See Flexser, L. A.

Dinsdale, C., and Curtis, E. A., producer

gas for heating coke ovens, B., 305. Dintzes, A. I., and Sherko, A. V., kinetics and mechanism of decomposition of hydrocarbons. III. Relation between velocity and extent of decomposition of n-hexanc and n-octane, A., 939.

Dionísio, J. R. See Da Silva, A. C. C.Dippel, C. J. See N. V. Philips' Gloeilam-

penfabr.

Dippy, J. F. J., and Lewis, Reginald H., chemical constitution and disocciation constants of monocarboxylic acids. V. Further substituted benzoic and phenylacetic acids, A., 797.

and Page, J. E., nitration of ethyl phenylacetate, A., 1106. and Watson, H. B., relationships be-

tween reaction velocities and ionisation constants, A., 684.

Dirac, P. A. M., does conservation of energy hold in atomic processes? A., 403. Relativistic wave equations, A., 1176.

Dirr, K., and Späth, H., conversion of arginine into citrulline, A., 58.

Dirseherl, W., sexual hormones and related substances. V. epiDihydrocinchol and its oxidation to 3-epihydroxyætioallocholan-17-one (androsterone). VI. Degradation of acetylepidihydrocinchol to β -3-hydroxynorallocholanie acid or to 3-hydroxynorallocholanic acid. VII. Carboxylic derivatives of the follicle hormone. VIII. Catalytic hydrogen-ation of the follicle hormone and its

acyl derivatives, A., 77, 202, 472.

Kraus, J., and Voss, H. E., sexual hormones and related substances. IX. Substance having powerful action on the vesicular glands of the castrated male mouse, A., 1157.

Dische, Z., formation of hexose diphosphate from glucose in intact human erythrocytes, A., 1135.

Dischendorfer, O., condensation of benzoin

with quinol, A., 82.

and Verdino, A., 2:6-dibenzoylquinol, A., 78. Condensation of benzoin and thymoquinol, A., 997. Condensation of benzoin and thymol. I. Preparation of 2-benzoylthymol [2-hydroxy-6-methyl - 3 - isopropylbenzophenone] and constitution of desylthymol. II. Constitution of nitration products of 2:3 - diphenyl - 4 - methyl - 7 -isopropyl -

coumarone, A., 997, 1118. Dishevski, J. F. See Gorschtein, G. I.

Diskina, B. S. See Smorodincey, I. A. Di Stefano, F. See Marotta, D. Distel, F. See Raub, E. Distillation à Basse Temperature & Auto Agglomération des Combustibles, ap-

paratus for agglomerating combustible materials, (P.), B., 681.

Distillers Co., Ltd., Auden, H. A., and Staudinger, H. P., treatment of cellulose esters, (P.), B., 95. Cellulose esters, (P.), B., 1087.

Auden, H. A., Staudinger, H. P., and Eaglesfield, P., treatment of cellulose esters, (P.), B., 539.

Distillers Co., Ltd., and Coppock, P. D., adhesive compositions, (P.), B., 513.

Davis, W. A., and Coppock, P. D., treatment of starch or starch-containing materials, (P.), B., 388.

Distler, E. F. See Hill, A. E.

District of Columbia Paper Manufacturing Co. See Harrigan, H. R.

Ditman, J. G. See Taylor, H. A. Ditmars, J. R. See Boyce, C. M.

Ditt, F. See Klenk, Ernst, and Knoop, F.

Dittmar, F. See Kober, H. Dittmar, H. See Pyriki, C.

Dittmer, J. See Seidel, F. Dittmer, J. C., and Nat. Lead Co., treatment of [lead] alloys, (P.), B., 239.

Ditto, Inc. See Whitmore, W. B. Dittrich, E., gas analysis, B., 773.

Ditz, E. Sec Tiffeneau, M.
Ditz, H., formation of "persilicate," A., 39.

and Hellebrand, R., thiocyanate-acotone reaction for detecting minimal quantities of cobalt in presence of iron, A.,

Diver, G. R. See Holden, G. W.

Divilkovski, M., and Filippov, M., dielectric losses at high frequency in liquids,

Dix, C. H., electrons and positrons, A., 400.

Dix, E. H., and Bowman, J. J., effect of composition on mechanical properties and corrosion-resistance of some aluminium die-castings, B., 24.

Dix, E. H., jun., wrought aluminium alloys for structural applications, B., 996.

Dix-Perkin, A. L., and Lee, E., grinding and pulverising machines, (P.), B., 1072.

Dixit, V. M., condensation of phenols and phenolic ethers with acetonedicarboxylio acid. II. β-Substituted cyclobutenonecarboxylic acids, A., 847.

Dixon, D., refractories: their composition, properties, and applications, B., 497.

Dixon, J. K., sheep ailment in Southland, B., 613.

See also Askew, H. O.

Dixon, K. C., inhibition of the Pasteur effect, A., 896. Carbohydrate catabolism in cerebral cortex, A., 1144. Effect of rise in temperature on carbohydrate catabolism of cerebral cortex, A., 1144.

See also Needham, J.

Dixon, L. F., Darkis, F. R., Wolf, F. A., Hall, J. A., Jones, E. P., and Gross, P. M., flue-cured tobacco; natural ageing of flue-cured cigarette tobaccos, B., 347.

See also Darkis, F. R.

Dixon, M., and Keilin, D., action of cyanide and other respiratory inhibitors on xanthine oxidase, A., 242.

Dixon, M. W. See Newhall, A. G. Dixon, R. M. See Dean, H. T.

Dixon, T. F., and Meyer, Alfred, respiration of brain, A., 1289.

Dixon, T. J., and Roffey, F., handling and storing of acids, B., 144.

Djang, \ddot{G} . F., atomic dimensions from the coefficients of compressibility and thermal expansion, A., 1192.

Djaparidse, D., influence of varied feeding of pregnant sows on development of the piglets, B., 427.

Diatlova, E. See Bernal, J. D.

Djatschenko, P., transformation of globulin into "proto-acid," A., 1037. See also Perov, S. S.

Diatschkov, V. D., and Koshuchova, O. S., stability of sodium aluminate solutions, A., 159. Decomposition of sodium aluminates, A., 439.

Djatschkova, E. A. See Blagodarov, M. L.

Djavid, I., daily variation in cosinophile numbers in blood; influence of adrenaline, A., 1282.

Dmitrenko, M. See Ferdmann, D. Dmitriev, L. I. See Botschvar, A. A. Dmitrieva, A. I. See Adadurov, I. E.

Doak, B. W., cyanoglucosides in white clover, B., 120.

Doan, F. J., and Welch, R. C., soft-curd milk, B., 249, 615.

See also Baldwin, F. B., jun.

Doan, G. E., and Schulte, W. C., arcs in inert gases. III., A., 1311.

Doan, R. L., fluctuations in cosmic-ray ionisation as given by several recording meters at the same station, A., 265.

Dobberstein, H., piczo-electricity of quartz

in liquid air, A., 928.

Dobbie, J. C., spectrum of Fe 11, A., 1.

Dobbin, L., Cullen chemical manuscript of 1753, A., 698.

Dobbins, J. T., and Ljung, H. A., system of qualitative analysis for the [commoner] anions, A., 303.

Dobinski, E., and Hanemann, H., influence of heat treatment between the A1 and A3 points on the structure and notched toughness of low-carbon ingot steel, B., 323.

Dobiński, S., density of liquid phosphorus, A., 417. Oxide layer on a polished

copper surface, A., 1055. and Elam, (Miss) C. F., surface of copper formed by solidification in a vacuum, A., 1451.

Dobitschin, D., and Frost, A. V., ageing of thin-layered palladium catalysts, A., 941. Hydrogenation with hydrogen dissolved in palladium, A., 1472.

Dobkin, I. E. See Nazarov, S. A. Doblhammer, F. See Faltis, F.

Dobner, A. E., and Škramovský, S., [direct] reduction of iron ores with solid carbon; stathmographic investigation, B., 1097.

Doborzyński, D., application of radio waves to measurement of dielectric constants of non-conducting liquids, A., 1481.

Dobriner, K., urinary porphyrins in disease, A., 503.

Dobrjanski, A. F., and Chomutin, M. S., production of dichloroethane from ethylene and chlorine on a semicommercial scale, B., 1032. and Gadaskina, N. D., condensation of

unsaturated and aromatic hydrocarbons, B., 631.

Gutner, R. A., and Schtschigeliskaja, M. K., production of dichloropropane from propylene, B., 1032. Production of dichloroethane, B., 1032.

Kanep, E. K., and Katzman, S. V., mechanism of vapour-phase cracking

process, B., 483.
Margules, E. Z., Davuidova, M. I., and Volkenschtein, A. S., production of amyl alcohols from pentancs, B., 1032.

and Petrova, I. N., determination of aromatics in cracked gasoline and similar products by the "specific gravity" method, B., 483.

Dobroljubski, A., correlation of secondary electron emission with photo-sensitivity and the thermionic effect, A., 1321.

Dobromilskaja, I. M. See Schagalov. A. J., and Suknevitsch, J.

Dobroschke, M. Sec under Taeschner Chem.-Pharm. Fabr.

Dobrotin, N., absorption of neutrons in silver and cadmium, A., 1314. Absorption of neutrons in silver, cadmium, and boron. II., A., 1441. See also Groschev, L.

Dobry, (Mme.) A., osmotic pressure and mol. wt. of cellulose acetate, A., 28. Perchlorates as solvents for cellulose and its derivatives, A., 426.

and Schwob, (Mme.) A., osmotic pressure and viscosity of polystyrencs, A., 1459.

Dobson, G. M. B., properties and behaviour of disperse systems of aqueous and other volatile particles, i.e., mist, cloud, hygroscopic nuclei, town and country fogs, A., 1198.

Doby, G. von, physiological-chemical determination of "plant-soluble" nitrogen of soils ("nitrogen number"), B., 897.

Dochlemann, E., decarburising and carburising velocities of iron, nickel, and cobalt in carbon monoxide-carbon dioxide mixtures, B., 993.

Dockendorff, R. L. See Squires, L.

Docker Brothers, and Lewis, C., roller mills for grinding paint and other substances, (P.), B., 256.

Docking, A. See Radiant Heating, Ltd. Docksey, P. See Beale, E. S. L., and Birch, S. F.

Dodd, C. M., and Cooke, S. R. B., red hearts in firebrick and fireclay shapes.

Dodd, D. R., place of nitrogen fertilisers in a pasture fertilisation programme, B., 658.

Dodd, F. R., chlorine content of feathers, A., 748; B., 880.

Dodd, H. See Imperial Chem. Industries. Dodd, J. F., waterproofing of concrete

blocks, pipes, etc., (P.), B., 1154. Dodd, L. E. See Goetz, A. Dodds, E. C., chemical structure in re-

lationship to hormone and biological activity, A., 1301. Chemistry of the ductless glands, A., 1301.

and Lawson, W., synthetic estrogenic agents without the phenanthrene nucleus, A., 1030.

See also Cook, J. W.

Dodds, E. M. See Evans, E. B.

Dodds, H. H., fertiliser experiments [on sugar cane], B., 950.

Dodé, M., structure of nitrogen peroxide deduced from its action on potassium iodide, A., 439. Reactions occurring during absorption of nitrous vapours by potassium iodide solutions, A., 693. Thermochemistry of the alkali and alkaline-earth nitrites, A., 1205. See also Basset, J.

Dodero, G., influence of extract of posterior lobe of pituitary gland on urine- and blood-inorganic phosphate, A., 117.

Dodge, B. F., and Karpen & Bros., S., methanol [methyl alcohol] manufacture and catalyst therefor, (P.), B., 971.

Dodge, F. D., sodium benzylsulphonate:

dimorphism, A., 555.

Dodge, G. W., Thorsen-Héry beater [for paper], B., 313.

Dodge, L. L., and Rhinelander Paper Co.,

paper, (P.), B., 270.
Dodonova, E. V., and Prizemina, Z. P., significance of individual constants of oils in comparative analyses, B., 509.

Dodson, W. C. See Smith, Drum & Co. Dodwadmath, R. P., and Wheeler, T. S., chalkones and chalkone oxides. I. Phenyl 3:4-methylenedioxystyryl ketone,

Doebbeling, S. E. See Caldwell, M. L. Doehlert, C. A., and Shive, J. W., nutrition of blueberry (Vaccinium corymbosum, L.) in sand cultures, B., 806.

Doelger, W. P., construction and operation of an experimental rocker section

[for tanning], B., 70.

Partridge, R., and Schreiberg, L., action of micro-organisms on vegetable tanning materials. II. Factors influencbiological activity. III. Lactic acid fermentation, B., 209, 382.

Doelling, G. L., [hydraulic brake] fluid composition, (P.), B., 1190.*

and Wagner Electric Corp., [hydraulic brake] fluid composition, (P.), B., 131.

Döpel, R., determination of neutron intensities by means of Fermi electrons from rhodium, A., 264. Time decay of atomic nuclear processes, A., 659. Nuclear processes with the mean corpuscular energy of star centres, A., 659.

Doerell, E. G., phosphate manuring by prescription and on the basis of results of soil examination, B., 1115.

Dörfeldt, W. See Erdenbrecher, A. H.

Dörfelt, C., decomposition of hydrogen peroxide in alkaline solution and its significance in the bleaching of cotton, B., 1091.

Dörffel, I., and Pöpping, changes in skin after cauterisation with dichlorodiethyl sulphide and mineral acids, A., 1414.

Doering, U. See Spanner, H. J. Döring, W. See Becker, R., and Vogel, R.

Dörle, E. See Winterfeld, K. Dörr, E. See Hercules Powder Co.

Dörrenhaus, G., Walter, S., and Verein. Stahlwerke Akt.-Ges., cooling of furnaces by means of cooling chambers, (P.), B., 351.

Doetsch, E. See Grube, G.

Dœuvre, J., determination of the terminal methylene group, A., 587.

and Desmule, R., pyrolysis of geraniol and citral, A., 311.

Dogliotti, G. C., and Castellani, T., glutathione and anæmia, A., 363.

and Meloni, O., glutathione and diabetes. A., 364.

Dognin Société Anonyme, gasmasks, (P.), B., 958. Dyeing of elastic fabrics [containing rubber threads] and apparatus

therefor, (P.), B., 983.

Doherty, S. W., urea-aldehyde moulding powders, (P.), B., 847.

Doherty, W. T. See Standard Oil Development Co.

Doherty Research Co., Burke, S. P., and Fryling, C. F., treatment of hydrocarbons, (P.), B., S6. Partial oxidation of hydrocarbons, (P.), B., 730.

and Engelke, E. F., refined lubricant from crude petroleum oil, (P.), B.,

and Goldsborough, W. E., combustible gas analyser, (P.), B., 679. and Keller, T. P., carbon-black produc-

tion, (P.), B., 485. and Merley, S. R., metal alkyl sulphates,

(P.), B., 442.

and Morgan, J. D., exhaust-gas analyser, (P.). B., 262. Glazed electric range beating unit and glaze therefor, (P.), B., 460.

Dohogne, A., water-permeability of pelt and leather, B., 421.

Dohrn, M. See Hohlweg, W., and Schoel-

Doig, A. T., and McLaughlin, A. I. G., X-ray appearances of the lungs of electric arc welders, A., 753.

Doisy, E. A. Seo MacCorquodale, D. W. Dojmi di Delupis, S., significance of the physiological antagonism between calcium and magnesium for plant growth, B., 1060.

Doladilhe, M., activity of globulins of blood as alexins, A., 495. Constituents of acid globulins; protein C, A., 875, 1529.

and Michel, M., alexic properties of

protein-C, A., 1136. and Morel, C., flocculation of globulin in diluted serum, A., 1283.

Dolby, R. M., and McDowall, F. H., chemistry of Cheddar cheese-making. II. Buffer capacity of wheys, B., 759. See also McDowall, F. H.

Dolch, H., lightest nuclei, A., 918.

Dolch, P., volatilisation of silicic acid and silicon as silicon sulphide, A., 173. Economical large-scale production of oxygen and oxygen-enriched air, B., 144. Gasification of bituminous coal in producers for road transport, B., 402.

Doldi, S., liquid fuels and corrosion, B., 677.

Dolé, K. K. See Karvé, D.

Dole, M., relative at. wt. of oxygen in water and in air, A., 263. Relative at. wt. of oxygen in water and in air; atmospheric distribution of the oxygen isotopes and the chemical standard of at. wts., A., 657. Concentration of deuterium in organic compounds. II. With particular reference to benzene, A., 667. Isotopic fractionation of water by physiological processes, A., 907. Density of purified Nevada hot spring and surface water, A., 957.

Dolejsek, V., modification of the Moseley law, A., 1442.

and Kunzl, V., Miv, - absorption edges of protoactinium (atomic number 91), A., 1438.

See also Bačkovský, J. M.

Dolfini, G., and Casuccio, S., blood-forming action of copper, A., 1135.

Dolge. See Scholder, R.

Dolgoplosk, A. B., determination of butadiene by condensation with quinones, A., 186.

Dolgov, A. P. See Vedrov, N. S.

Dolgov, B. N., and Abarenkova, E. A., synthesis of acetic acid from methyl alcohol and carbon monoxide under pressure, B., 970.

Koton, M. M., and Leltschnk, S. L., synthesis of esters by dehydrogenation of alcohols at atmospheric pressure, B., 181. Synthesis of ethyl acetate by dehydrogenation of ethyl alcohol. I., B., 536.

See also Botscharova, E. M.

Dolgov, K. A., influence of sulphuric, carbonic, and sulphurous liquor on the cooking of straw pulp, B., 635.

Dolid, J., and Dictaphone Corp., composition for phonograph records, (P.), B.,

Dolin, P. I. See Schvemberger, V. I. Dolinov, K., gel formation in hen egg plasma, A., 1146. See also Perov, S. S.

Dolique, R., use of a [heated] bar in determining m.p., A., 45. Determination of b.p. of

small quantities of substances, A., 45. Dolivo-Dobrovolski, V. V., crystallographic identification of substances, A., 1477.

See also Boldyrev, A. K.

Dolman, C. E., ingestion of Staphylococcus exotoxin by human volunteers with special reference to staphylococcic food poisoning, A., 1423. and Kitching, J. S., tests for innocuity

and antigenic potency of staphylo-

coccus toxoid, A., 1136.

Dols, M. J. L., effect of cod- and tunnyliver oils and of irradiated ergosterol and cholesterol preparations on avian rickets, A., 1161.

Dolton, R. H., use of the centrifuge in a modern [petroleum] refinery, B., 966.

Domange, L., equilibria of metal fluorides with water vapour, A., 682.

Domański, T., and Suszko, J., transformations of isoquinidines, A., 490. Niquid-

ine, A., 490. Domarus, A. von, blood groups, blood transfer, and blood substitutes, A., 1402.

Dominguez, R., renal excretion of urea, A., 229.

Goldblatt, H., and Pomerene, E., kinetics of elimination of substances injected intravenously; (creatinine), A., 1410.

Domini, G., 2:4-dinitrophenol and respiration of tissues in vitro, A., 239. Carioclasic crisis in the reticulo-endothelial system and endogenous uric

acid exchange, A., 375. and Peruzzi, P., exhaustion of the respiratory capacity in vitro of tissues, A., 368.

Domnin, N. A. See Favorski, A. E. Donahoe, J. T., utility of [calcium] carbide

residue, B., 191.

Donahue, T. F., jun., and Zimbon, E.. residual chlorine determinations [in water], B., 526.

Donald, M. B., determination of nitrate by means of Devarda's alloy, A., 694. History of the Chile nitrate industry, B., 541. Chemical engineering in the brewing industry, B., 566.

Donald, R. J. See Seyer, W. E. Donaldson, J. W., thermal conductivities of metals and alloys, A., 418.

Donaldson, R., trichromatic colorimeter,

Donaldson, R. N., [gasoline] plant residue test, B., 227.

Donaldson, T., planning and control of chemical manufacture, B., 671.

Donaldson, W. T. See Texas Co.

Donard, H., lubrication, B., 1077. Donard, E. See Labbé, H. Donat, J. See Scholl, R.

Donatelli, G. See Berlingozzi, S.

Donatelli, L., toxic action of local anæsthetics on the amphibian heart, A., 240. Constitution and hypnotic action: bromoethyl- and diethyl-barbituric acid, A., 375.

Donath, W. F., and Spruyt, J. P., vitamin- B_1 content and feeding value of some important [East] Indian food-stuffs; is katjang idjoe the most suitable means of combating mild cases of beri-beri? A., 1032. See also Sprnyt, J. P.

Donau, J., determination of gold with avoidance of the cupellation process, A.. 581. Microchemical determination of silver, A., 695.

Dondim, E. See Kangun, I. Donelson, J. G. See Harned, H. S. Dongen, D. W. van. See Nat. Aniline &

Chem. Co. Donk, E. C. van. See Feldman, H.

Donk, P. J. See Cerobrex, Ltd.
Donleavy, J. J., utilisation of S-benzylthiuronium chloride for isolation and identification of organic acids, A., 1005.

Donnald, R. H. See Hellmers, H. T Donnan, F. G. See Ghaswalla, R. P.

Donnay, J. D. H., alternating axes and symmetry symbols in crystallography, Å., 15.

and Mélon, J., crystallography of lithium molybdotellurate, A., 783. Crystallography of cesium molybdotellurates, Ă., 1054.

See also Morse, H. W.

Dontcheff, L., and Kayser, C., retention of carbonic acid in the dormouse (Myoxus glis) in course of carbon dioxide narcosis and rôle of the tissues in maintenance of the alkaline reserve, A., 494. Determination of alkaline reserve in small mammals, A., 494. Variations of respiratory quotient of the frog and the turtle as a result of sharp changes of temperature of environment, A., 745. Respiratory quotient of the fasting frog and turtle maintained at 20°, 10°, and 5°, A., 745. Influence of high and low concentrations of carbonic acid on oxygen consumption of frogs, A., 1007. Variation of respiratory exchange of active dormice with temperature, A., 1007.

Dony, O. C. M., purification of coke, (P.), B., 1078.

Dony-Hénault, O., metallurgy of zinc, B., 1157.

and Decroly, C., direct determination of zinc vapour concentration in thermal reduction of zinc oxide, A., 30.

Donzelot, P., and Chaix, M., Raman effect of organic sulphides, A., 547.

Doody, T. C. See Randall, M. Dooley, A., and Goodeve, C. F., sulphuric acid mist, A., 1198.

Dooley, B. F., jun. See Texas Co. Doolittle, A. K. See Carbide & Carbon Chemicals Corp.

Doolittle, H. D., disintegration of Li bombarded by slow protons, A., 918.

Doom, E. F. See Electro Metallurg. Co. Doorenbos, W., presence of hæmolysins in young cultures of cholera vibrios, A., 383. Variation of hæmolytic power of the El Tor vibrio, A., 385.

Doormaal, P. M. van. See Pfeiffer, J. P.

D'Or, L., absorption spectra of sulphur

vapour, A., 127.

Doran, W. J. See Shonle, H. A.

Doran, W. L., vinegar as a soil disinfectant,

B., 1116.

Dorcas, M.J. See Supplee, G.C.

Dorchies, E., spirituous liquors derived from grain; gin, B., 40.

Dorée, C., and Petrov, V. A., hydrogenation under the action of selenium. I. Action of selenium on cholesterol at 230°, A., 69. Lanosterol. 1505.

Dorey, S. F., welding of pressure vessels, B.,

Dorfan, M. I., and Blaw-Knox Co., apparatus for [pneumatically] separating granular material, (P.), B., 256.

Dorfman, M. See Bent, H. E.

Dorfman, V. A., bioelectric and oxidationreduction potentials of the amphibian egg, A., 1010. Micro-electrode for determining p_H , A., 1038.

Dorfmüller, G. See Spengler, O.

Dorgelo, H. B., Alting, H., and Boers, C. J., electron temperatures in the positive column in mixtures of neon and argon or mercury, A., 4.

and De Graaf, J. E., possibility of measuring elastic stresses by means of

X-rays, B., 936. Dorier, M. See Roche, A.

Dorin Corporation. See Jack, G. B., jun. Dorman, Long & Co., Ltd., and Lewis, J. S., treatment of furnace slag for production of foamed and granulated slag, (P.), B., 277.

Dorn, J. E., and Glockler, G., high-temperature vacuum Debye-Scherrer X-ray

camera, A., 1481. Dornberger, F. See Treibs, A.

Dorner, O. See Meisenheimer, J. Dorner, W., laboratory preparations and commercial cultures used in cheesemaking, B., 568.

See also Karnicki, F.

Dornisch, M. O., and Sladkova, M. V., elimination of fluorine and silicon from technical phosphoric acid, B., 316.

Dornow, A. See Leuchs, H. Dornte, R. W., oxidation of white oils, B., 307.

and Ferguson, C. V., oil oxidation, B., 867.

Doro, B. See Rost, F.

Dorogov, N. N. See Astrachantzev, P. I. Doroschenko, V. M. See Devjatnin, V. A. Dorough, G. L. See Du Pont de Nemours & Co., E. I.

Dorr, J. V. N., classification trends in

America, B., 303.

Dorr Co., Inc., [reinforced, saucer-shaped] diaphragms for pumps, etc., (P.), B., 131. Sewage-sludge digestion, (P.), B., 350. Sewage[-sludge] treatment, (P.), B., 398. [Rake] classifiers, (P.), B., 577.

See also Downes, F. A., Fischer, A. J., Goodwin, R. T., Lund, N. B., McArthur, C. K., Thackwell, H. L., and Weber, W. C.

Dorren, J. See Fréling, L.

Dorronsoro, J., and Moreno Martin, F.. meteoric iron from the province of

Granada, A., 1228.
Dorsch, K. See Hänsel, G.
Dorst, P. W. See Reed, R. F.

Dortmund-Hoerder Hüttenverein Akt.-Ges., elimination of gases from liquid [blast-furnace] slag, (P.), B., 410. [Refining of a] liquid iron bath, (P.), B., 1044.

ation, A., 295.

Doškař, J. See Milbauer, J.
Doss, J. H. See Gibson, W. A.
Doss, K. S. G., ageing of surface of solutions, A., 284. Collision frequency in solutions, A., 1185. Ageing of sur-faces of solutions. II. Activated accumulation of solute molecules, A., 1335.

and Rao, B. S., "apparent" and "true" adsorption functions, A., 423. Ageing of surfaces of solutions. I. Study of variation of surface tension of solutions with time by the ring method, A., 1335.

Dostal, H., mechanism of polymerisation reactions. I. and II., A., 164. and Mark, H., mechanism of polymeris-

Douglas, G. S., paper mill slime, B., 830. Douglas, H. C., and Cruess, W. V., a lactobacillus from Californian wine: Lactobacillus hilgardii, A., 898.

Douglas, M. See Castellani, A. Douglas, S. D. See Carbide & Carbon Chem. Corp., and Curme, G. O., jun.

Dostal, H., and Raff, R., kinetics of thermal

polycondensation, A., 685. Kinetics of

thermal polymerisation of indene, A.,

939. Mcchanism of thermal poly-

Dostal, K. See under Putterlik a Spo

Dostalová, M. See under Putterlík a Spol

Dotti, L. B., response of the rabbit to

Doty, A. E., cattle-spray tests, B., 516. Doubilet, H., differential quantitative ana-

lysis of bile acids in bile and in duodenal drainage, A., 880. Determination of

cholic acid in bile and in duodenal

Douchement, J., welding of aluminium and

Doudoroff, M., association of characters

Dougan, R. B. See Hitchcock, D. I. Dougherty, E. E., and Zimmerer, M. R..

primary cells], (P.), B., 418.

Dougherty, E. Y., geologic problems of the Canadian Pre-Cambrian gold fields,

Douglas, F. W., coal of the Pikes Peak

temperature carbonisation, B., 305.

region; evolution of gases during low-

Dougherty, G. See Zellner, C. N. Doughty, E. W. See Eversole, W. G. Douglas, C. G. See Courtice, F. C.

among dissociates from Staphylococcus

recovery of values [zine, etc., from spent

drainage, A., 1536. Doubinski, N. M. See Schtschigol, M.

and Hrubetz, M. C., true blood-sugar

level in insulin shock and convulsions,

condensation reactions, A., 1209.

Komanditni Spolecnost, J.

Komanditni Spolecnost, J.

insulin, A., 1425.

See also Smith, P. E.

its alloys, B., 600.

aureus, A., 1559.

A., 448.

A., 496.

Douglass, W. A. See Du Pont de Nemours & Co., E. I.

Dounce, A. L., Wardlow, R. H., and Connor, R., preparation and reactions of tertiary tetrahydrofurylearbinols, A.,

Doury, D. R. See Greeley, P. O.

Douthett, O. R., and Patent & Licensing Corp., artificially coloured building material, (P.), B., 837. See also Smith, P. R.

Dovatelli, L. See Aiazzi-Mancini, M. Dove, W. F., and Murphy, E., vitamin-C content of apples and its relation to human welfare, A., 906.

Dovey, W. C. See Rowe, F. M. Dow, H. H. See Dow Chem. Co.

Dow, P., adsorption of ovalbumin on collodion membranes, A., 1197.

Dow, R. B., viscosity as a function of volume and temperature of oils, B., 1029.

Dow Chemical Co., Barstow, E. O., Heath, S. B., and Minger, F. R., separation of calcium and magnesium chlorides, (P.), B., 273. Magnesium chloride from calcium chloride, (P.), B., 1038.

and Bass, S. L., halogen derivatives of aliphatic acids, (P.), B., 824.

Bass, S. L., and Burlew, W. L., chlorination of propionic acid, (P.), B., 264. and Binder, W. O., flux for autogenously welding magnesium and its alloys, (P.), B., 26.

Dow Chemical Co., and Britton, E. C.,

phenols, (P.), B., 443.

Britton, E. C., Coleman, G. H., and Hadler, B. C., chlorination of aliphatic hydrocarbons, (P.), B., 1192.

Britton, E. C., Coleman, G. H., and Mate, B., ethylene oxide, (P.), B., 1192.

Britton, E. C., Coleman, G. H., Zemba, J. W., and Zuekermandel, E. C., purification of chlorinated hydrocarbons, (P.), B., 1192.

Britton, E. C., Huscher, M. E., and Nutting, H. S., acetic acid [from propyl-

ene], (P.), B., 488.

Britton, E. C., Huscher, M. E., Nutting, H. S., and Petrie, P. S., tert.-butyl chloride, (P.), B., 441.

Britton, E.C., Nutting, H.S., and Petrie, P. S., olefine oxides, (P.), B., 310.

Britton, E. C., and Slagh, H. R., aryl magnesium chloride, (P.), B., 444.

Britton, E. C., and Stearns, H. A., naphthols, (P.), B., 443.
Britton, E. C., and Stoesser, W. C., a-naphthol, (P.), B., 91.

Britton, E. C., Stoesser, W. C., and Goergen, G. G., halogenated diphenyl oxide, (P.), B., 1195.

and Chamberlain, L. C., treatment of [oil] wells, (P.), B., 820.

Chamberlain, L. C., and Boundy, R. H., extraction of iodine from natural brines, (P.), B., 542.

and Coleman, G. H., purification of tetrachloroothylene, (P.), B., 487. isoPropyl esters of aliphatic acids, (P.), B., 1194.

Coleman, G. H., and Moore, G. V., alcoholysis of olefine diesters, (P.), B., 823. Esters of glycols, (P.), B., 1192.

and Collings, W. R., free-flowing roadtreating material, (P.), B., 1096.

and Dow, H. H., heat transfer, (P.), B., 223.

and Gann, J. A., magnesium-base alloy,

(P.), B., 331. Gann, J. A., and Gross, W. H., treatment [pickling] of magnesium, (P.), B., 459. Treatment [pickling] of magnesium articles, (P.), B., 459.

and Grebe, J. J., treatment of [casing of water, brine, or oil] wells [to remove calcareous deposits], (P.), B., 670.

Grebe, J. J., and Stoesser, S. M., treatment of deep [oil] wells, (P.), B., 136. Grebe, J. J., Stoesser, S. M., and Mills,

L. E., [dry-cleaning] solvent com-

position, (P.), B., 90. and Grether, E. F., purifying and decolorising cincophen, (P.), B., 1235. Grether, E. F., and Coleman, G. H.,

direct-developed azo-dyes [ice colours], (P.), B., 687.

Grether, E. F., and Mills, L. E., azodyes [ico colours], (P.), B., 826.

Grether, E. F., and Pelton, E. L., [synthetic] esters [for perfumes and flavourings], (P.), B., 825.

Harlow, I. F., and Short, C. E., bromides, (P.), B., 542.

and Heath, S. B., ammonium chloride, (P.), B., 406. Calcium chloratecalcium chloride mixed product [herbicide], (P.), B., 853.

Heath, S. B., and Fry, W., intensified hydrochloric acid, (P.), B., 986.

Heath, S. B., and Ohman, M. F., preparation of iodine from impure silver iodide, (P.), B., 594.

Dow Chemical Co., and Mills, L. E., alkali trichlorophenolates, (P.), B., 91. Zinc 2:4:5-trichlorophenolato [-trichlorophenoxide], (P.), B., 360. Insecticide, (P.), B., 1172.

and Murch, W. M., indanthrene-blue, (P.), B., 734.

Nutting, H. S., Petrie, P. S., and Huscher, M. E., ethylidene chloride, (P.), B., 919.

Perkins, R. P., Dietzler, A. J., and Lundquist, J. T., tert.-alkyl-substituted aromatic derivatives, (P.), B., 91.

and Pree, L. D., electrodes, (P.), B., 606.

and Reimers, H. A., inhibiting oxidation of readily oxidisable metals [magnes-

ium], (P.), B., 155.

Stoesser, W. C., and Dietzler, A. J., removal of impurities from salicylosalicylic acid, (P.), B., 825.

White, A. C., and Stoesser, S. M., ferric chloride etching solutions [for copper printing plates, etc.], (P.), B., 25.
Wibaut, J. P., and Dalfsen, J. van,

ethylidene chloride, (P.), B., 88. and Williams, W. H., drying of p-hydroxydiphenyl, (P.), B., 921.

and Winston, A. W., composite wrought forms of magnesium alloys, (P.), B., 1049.

Dowd, G. R., attenuated (R.I.) tuberclo bacilli recovered from silicotic and

normal guinea-pigs, A., 1423. Dowd, O. J. Sce Miller, E. V. Dowd, W. C. Sce Weaton, G. F. Dowden, H. C. See Davies, W. L. Dowie, D. L. See Brammall, A.

Dowling, J. J., vapour-pressure hygrometer, A., 956. Apparatus for determining the quantity of one or more of the constituents in samples of air, flue or other gases, (P.), B., 1073.

Dowling, P. H., and Union Switch & Signal Co., copper oxide rectifier, (P.), B., 241. Downes, E. M., lining concrete fermenting

vessels, B., 901.

Downes, F. A., Fischer, A. J., Lund, N. B., and Dorr Co., Inc., sewage aëration, (P.), B., 78.

Downie, C. C., treatment of precious metal matte, B., 326.

Downing, C. A., modification of present

miscibility test [for asphalt emulsions] and its relationship with probable settlement results, B., 482.

Downing, F. B. See Du Pont de Nemours & Co., E. I.

Downs, C. M., and Bond, G. C., cultural characteristics of Pasteurella tularense,

Downs, P. A., Hammer, B. W., Cordes, W. A., and Macy, H., bacteriological methods for analysis of dairy products, B., 520.

See also Whitfield, B. H.

Downs, R. See Holmes, M. C. Dowsett, C. W., gold precipitation improved by adding caustic starch, B., 325.

Dowzard, E., and Russo, M. J., electricallyhoated m.-p. apparatus, A., 304. Dox, A. W., tetra-alkylbarbiturio acids,

A., 1391. Dox, A. W., and Bywater, W. G., tertiary

alkylbarbituric acids, A., 864. Bywater, W. G., and Tendick, F. H., crystalline by-product, obtained in large-scale extraction of theelin and theelol, A., 214.

Doyle, R. J. See Fischer, Hans.

Dozois, K. P., and Hatchel, F., influence of heat and storage on electrophoretic migration velocities of various microorganisms, A., 382.

Hachtel, F., Carr, C. J., and Krantz, J. C., jun., acid and gas formation by members of the coli-aërogenes intermediate groups in presence of sugar alcohols and their anhydrides, A., 113.

Drabkin, D. L., analysis of the spectra of hæmoglobin derivatives, A., 355.

and Austin, J. H., spectrophotometric studies. II. Preparations from washed blood colls; nitric oxidehæmoglobin and sulphæmoglobin. III. Methæmoglobin. IV. Hæmochromogens. V. Technique for analysis of undiluted blood and concentrated hæmoglobin solutions, A., 221. Dräger, B., and Dräger, O. H., medium

for detecting chemically reactive gases in neutral gases, (P.), B., 862.

Dräger, O. H. See Dräger, B.

Drageant, H., determination of active chlorine in bleach liquors, B., 692.

Dragstedt, C. A., and Mead, F. B., inactivation of histamine in vivo, A., 885.

Dragstedt, L. R. See Davis, H. A. Dragulescu, C. See Spacu, G. Draisbach, F. See Chem. Fabr. Benckiser G.m.b.H., J. A.

Drake, A. A. See Rice, C. E. Drake, G. W. See Barrick, L. D., and Felsing, W. A.

Drake, J. L., and Libbey-Owens-Ford Glass Co., furnace construction for production of molten glass, (P.), B., 595

Drake, N. L., and Campbell, W. P., cerin and friedelin. III. Oxidative degradation of friedelin, A., 1386.

and Duvall, H. M., dehydrogenation of ursolic acid by selenium, A., 1386.

and Haskins, W.-T., cerin and friedelin. IV. Dehydrogenation of friedelinol, A., 1386.

and Veitch, F.P., jun., action of sulphuric acid on sec.-butyl alcohol, A., 311. Drake, T. G. H. See Branion, H. D.

Dranitzina, J. A., essential oil of Hyssopus ambiguus (Traut.), Iljin, B., 571.

Dranitzuin, B. N., tanning with fats, B.,

Draper, C. H. See Pennell, P. II.

Drautz, H., grinding [ends of] glass tubing and apparatus flat, A., 1482.

Drea, W. F., spectrum analysis of hen-eggs and chick-tissues, A., 511. See also Boissevain, C. H.

Dreher, E. See Staudinger, H.

Drehschmidt, H. See Koppers Akt.-Ges. H. Drekter, J.J., Natelson, S., and Sobel, A.E.,

fractionation of cholesterol in blood by precipitation as pyridine cholesteryl sulphate and cholesterol digitonide, A., 1400.

See also Sobel, A. E.

Drescher, C., and Schäfer, R., hydrogen as the cause of low elongation and reduction in area of steel, B., 323.

Drescher, E. See Glazunov, A. Drescher, T. B., and Bausch & Lomb Optical Co., marking of glass, (P.), B.,

Drescher-Kaden, F. K., assimilation processes, formation of migmatites, and their signification in origin of magmas, A.,

Dresher, A. C., determining oxygen in boiler-feed water, B., 911.

Dressel, M. N., hammer mill, (P.), B., 672. Dressler, P. d' H., Hanff, E. A., and Swindell-Dressler Corp., circular type tunnel kiln, (P.), B., 147.

and Swindell Dressler Corp., continuous tunnel kiln, (P.), B., 989.

Drever, G. See Butler, J. A. V. Drew, H. D. K., and Tress, H. J., red and green forms of Magnus' salt, A., 41.

Drew, R. L., logwood pigment for cellulose nitrate lacquers, B., 751.
Drew, T. B., Hottel, H. C., and McAdams,

W. H., heat transmission, B., 767.

Drewitt, J. G. N. See Chattaway, F. D. Drewry, J. S. See Shelvoke & Drewry. Drewson, P., and Hinde & Dauch Paper

Co., paper, (P.), B., 96. Drexler, K. Sec Gossner, B.

Dreyer, A., ball mill, (P.), B., 80.

Dreyer, G., and Campbell-Renton, M. L., action of ultra-violet light on bacteria, A., 1156.

Dreyfus, C., ultra-violet-light-transparent glass, (P.), B., 498. Textile process, (P.), B., 1201. Threads and fabrics made with filaments of cellulose esters or

ethers, (P.), B., 1201.

Dreyfus, H., acctio anhydride, (P.), B., 11. Cellulose, (P.), B., 95, 313, 365. Treatment of cellulosic materials, (P.), B., 95. Cellulose and cellulosic products, (P.), B., 95. Saccharification of cellulose materials, (P.), B., 39. Compositions and articles containing organic derivatives of cellulose, (P.), B., 142. Treatment of artificial filaments, threads, films, etc., (P.), B., 143. Treatment of artificial filaments, threads, yarns, fabrics, etc., (P.), B., 187. Treatment [stretching] of artificial filaments, yarns, films, and similar materials containing organic derivatives of cellulose, (P.), B., 95, 1204. Crêpe threads and fabries containing artificial filaments, (P.), B., 96. Artificial yarns, films, and similar materials, (P.), B., 142. Treatment of filaments, yarns, etc., of organic derivatives of cellulose, (P.), B., 232. Acetylene, (P.), B., 263. Treatment of cellulosic filaments, yarns, ribbons, etc., (P.), B., 272. Saponification of organic esters of cellulose, (P.), B., 313. Crêpe threads and fabrics, (P.), B., 314. Treatment [delustring] of artificial silk, (P.), B., 315. Treatment [hydrolysis] of cellulose ester materials, (P.), B., 539. Saponification of organic esters of cellulose and of articles made thereof, (P.), B., 690. Coloration of materials containing synthetic resins, (P.), B., 692. Manufacture and treatment of artificial filaments, yarns, fabrics, etc., (P.), B., 692. [Crêped] textile yarns and fabrics, (P.), B., 736. Cellulose derivatives and filaments, films, plastic masses, sizes, etc., (P.), B., 785. Yarns, fabrics, and similar materials having a basis of cellulose acetate, (P.), B., 830. Yarns, fabrics, films, and similar materials having a basis of organic derivatives of cellulose, (P.), B., 830. Coloration of cellulose derivatives, (P.), B., 832. Aliphatic anhydrides and aldehydes, (P.), B., 872. Lower aliphatic anhydrides, (P.), B., 872. Combustible gases from solid carbonaceous materials. (P.), B., 916. Coloration of textile materials, (P.), B., 929, 983. Sizing or similar treatment of textile materials, (P.), B., 930. Alkylene oxides, (P.), B., 971.

Dreyfus, H., ethylidene diacetate and homologous esters, (P.), B., 971. Manufacture or treatment of artificial filaments, threads, films, etc., (P.), B., 981. Films, foils, etc., (P.), B., 1087. Production and treatment [stretching] of artificial filaments, threads, yarns, foils, and similar materials, containing organic derivatives of cellulose, (P.), B., 1087. Production and treatment [stretching] of artificial textile materials containing organic derivatives of cellulose, (P.), B., 1087. Artificial filaments, ribbons, films, and similar materials, (P.), B., 1147. [Crimped] textile yarns, (P.), B., 1200. Treatment of textile materials, (P.), B., 1205. Treatment [shrinking] of artificial filaments, threads, ribbons, and similar materials of organic derivatives of cellulose, (P.), B., 1205.

See also Brit. Celanese.

Dreyfus, L. See Allmanna Svenska Elektriska Aktieb.

Dreyfuss, P., abnormal reactions of hydroxylamine, A., 487. Olivil, A., 842. Tetramethoxyfluorenecarboxylic acid and the "red substance," A., 1256. and Serra, F., diveratrylacetic acid and

triveratrylmethane, A., 1252.

Dreyspring, C. See Krügel, C. Driessens, J. See Lambret, O., Polonovski, Michel, and Warembourg, H.

Driest, E., and Müller, H., electron microscopic photographs (electron micrograms) of chitin objects, A., 955.

Drigalski, IV. von, reducing power of vitamin-C in urine in health and disease,

A., 120. Vitamin- B_2 , A., 905. Driggs, F. H. See Westinghouse Lamp

Drigo, A., frequency of secondary phenomena of the radiation penetrating lead,

Drilhon, A., chemical and physical constants of the body-fluid of sacculine crabs, A., 750.

and Florence, G., physical chemistry of

fish blood, A., 1401.

and Pora, E. A., ionisation and buffers of the internal medium of the parasitised sacculenised crab (Carcinus mænus), A., 876. Regulation of the mineral composition of body-fluids in fishes, A., 1401.

Drinberg, A. J., production of drying oil from synthetic acids obtained by oxidation of petroleum oil fractions, B., 648.

and Blagonravova, A. A., influence of the alcoholic residue on film-forming properties of linseed oil esters, B., 160. Effect of structure of the alcohol radical on film-building properties of esters of linseed oil acids, B., 650.

and Veitz, N. I., influence of the quality of the raw material and method of esterification on properties of ester varnishes obtained from polymerides produced by cracking petroleum and from soda soaps of synthetic acids, B., 30.

Drinker, C. K., effects of heat and humidity on the human body, A., 1549.

Drinkwater, J. W. See Ubbelohde, A. R.Drisch, J., blood-sugar and glutathione content of blood and tissues after administration of glutathione, A., 1292.

Drisina, R. See Venderovitsch, A.

Dritschek, S. B., recovery of vanadlum from Kerch cast iron in a basic openhearth furnace at the Ilich plant at Mariupol, B., 23.

Driver-Harris Co. Seo Blythe, W. E.. Hunter, M.A., and Lohr, J.M.

Drobinskaja, V. P. See Zilberkveit, E. K. **Droege**, K., preparation of zincographic plates for printing, (P.), B., 396.

Drogin, I., carbon black for printing inks, B., 964.

Drosdoff, M., and Truog, E., removing iron oxide coatings from minerals, A., 49.

See also Truog, E.

Drosdov, N. S. See Drosdov, S. S.

Drosdov, S. S., and Drosdov, N. S., changes in meat during storage, B., 665.

Drossbach, P., electrometallurgy of aluminium, A., 431. Production of aluminium by electrolysis of fused cryolite and aluminium oxide, A., 566. Representation of specific heats as a function of temperature, A., 1190. Determination of decomposition potential of molten salts, A., 1343. Heat balance of technical aluminium furnaces, B., 1159.

Droste, W. H., interaction between media and pigments in paint films, B., 702. Free fatty acids [in linseed oil] and the "soap-formation theory," B., 941.

Drouet, P. L. See Santenoise, D.

Drouilly, E., accelerated corrosion experiments in sea-water, B., 548. "Alumag" self-protecting aluminium alloys, B., 794.

Drozdov, N. S., and Leznova, N. S., preparation and properties of mesochloroacridine and acridone, and their derivatives, A., 84.

and Tscherntzov, $O.\ M.$, meso-derivatives of acridine. IV. 9-Phenoxyacridines. V. Derivatives of 9-aminoacridine, A., 735.

Druce, J. G. F., precursors of rhenium and masurium, A., 1086.

Druckrey, H., metabolism of injured tissue, A., 102, 367. Action of pituitary secretion on tumours, A., 504.

and Köhler, G., sedative action of valerian, A., 1552.

Druey, J., preparation of [alkyl]aminoiso-

propylidenepyrocatechols, A., 200. See also Bovet, D.

Drug Products Co., Inc. See Torigian, J. Drum, H. S. See Smith, Drum & Co.

Drummond, A. A. See Imperial Chem. Industries.

Drummond, D. G., infra-red absorption spectra of quartz and fused silica from 1 to 7.5 μ . I. Experimental method. II. Results, A., 406. 2.73 μ Absorption band in fused silica, A., 1318.

Drummond, J. C., Bell, M. E., and Palmer, E. T., absorption of carotene and

vitamin-A, A., 253. and Macwalter, R. J., fate of carotene injected into the circulation of the rat, A., 390.

Santos Ruiz, A., and Thorbiarnarson, T., application of chromatographic adsorption technique to study of the unsaponifiable residue of fish oils, B.,

See also Bacharach, A. L., Haines, R. T. M., and Haslewood, G. A. D.

Druschinin, D. V., use of dunite for improving [manurial] properties of super-

phosphate, B., 1059.

Drushinin, I. G. See Makarov, S. Z.

Drutel, H. See Meyer, André.

Druyvesteyn, M. J., calculation of Townsend's a for noon, A., 399. Positive ionic current on the glow cathode in a gas discharge, A., 538. Electron emission of the cathode of an arc, A., 656.

See also Holst, Gilles.

Dry, T.J. See Judd, E.S.Dryer, C.G. See Morrell, J.C., and Universal Oil Products Co.

Drysdale, J. K., treatment of mineral or vegetable oils for production of thickened or solidified oil therefrom, (P.), B., 970.

Drysdale, J. W. W. Sec Drysdale & Co. Drysdale & Co., Ltd., and Drysdale, J. W. W., suction strainers, (P.), B., 480.

Dshjobadse, S. Seo Agrosskin, A.

Dubach, R., and Hill, R. M., apparatus for determination of colloid osmotic pressure in small amounts of fluid, A., 183.

Dubaquíe. See Denigés. Dubar, L., bulk and superficial conductivities of cuprous oxide, A., 11. Surface conduction of cuprous oxide, A., 779. Influence of atmospheric gases on electrical conductivity of cuprous oxide, A., 1050.

Dubbs, C. P. See Universal Oil Products

Dubilier, W. See Dubilier Condenser Co. (1925).

Dubilier Condenser Co. (1925), Ltd., [sealing arrangement for] electrolytic condensers, (P.), B., 508. Electrolytic condensers, (P.), B., 508, 845. Electrolytic condensers and other electrolytic devices, (P.), B., 747. [Electrolyte for] electrolyte condensers, (P.), B., 940.

Dubilier, W., and Oppenheimer, J., electrolytic condensers, (P.), B., 203. Electrolytic condensers [with folded or pleated electrodes], (P.), B., 508. Electrical [electrolytic] condensers, (P.), B., 556. Electrolytes for electrolytic condensers, (P.), B., 556.

and Gray, E., electrolytic condensers, (P.), B., 556.

Dubinin, B. M., action of isobutylene on phenyl methyl ethers, and structure of tert.-butylphenyl methyl ethers, A., 66.

See also Tschelincev, G. V.

Dubinin, M., and Chrenova, M., dynamics of sorption of mixtures of vapours, A., 1334.

and Javitsch, S., theoretical basis of calculating work of adsorbents, in particular as applied to fractionation of mixtures of gases or vapours, A.,

and Saverina, $E_{\cdot \cdot}$, porosity and sorption properties of activated charcoal, A., 1334.

Dubkov, J. See Schischkin, V.

Dubner, E. M., measurement of pressure in the plastic zone [of coal], B., 5.

Dubnikov, L. M. See Vosnessenski, S. Dubnoff, J., and Kirk, P. L., determination of traces of ferric iron, as in blood-serum, A., 747.

Dubois, A., utilisation of sugars by Leishmania tropica, A., 1559.

Du Bois, D. See Himwich, H. E.

Dubois, G., dephlegmators and condensers, B., 1135.

Dubois, P., thermal balance-analyser with photographic recording, A., 954. See also Rencker, E.

Du Bois, R., and Roberts, A. H., experimental test of identity of electrokinetic potentials; electrosmosis and streaming potential measurements with a glass slit, A., 796.

Dubos, R., specific bacterial enzyme which decomposes the capsular polysaccharide of type III pncumococcus, A., 1150. and Bauer, J. H., use of graded collodion

membranes for the concentration of specific bacterial enzyme, A., 1150.

Sco also Meyer, Karl. Dubouloz, P., study of kinetics of a photochemical reaction by means of ultraviolet spectrophotometry; decomposition of vitamin-A, A., 1215.

and Rochette, J., modifications of oxidation-reduction of tissues in vivo during photo-sensitisation, A., 888. See also Chevallier, A., and Roche, J.

Dubovitski, F. I., ignition limits of oxygenhydrogen mixtures, A., 163.

Dubovitzki, A. M., and Margolis, F. G., physico-chemical properties of ammonium nitrate produced in the U.S.S.R., B., 639.

Dubrisay, R., capillary analysis and its applications, A., 577. Applications of colloid chemistry; emulsifiers and wetting agents, B., 309.

and Lefol, J., salt hydrates, A., 1216. and Saint-Maxen, A., basic acetates of

lead, A., 1464. See also Lafuma, H.

Dubrovai, K. K., and Scheinman, A. B., technology of the "Dubrovai" vapour-phase cracking, B., 227.

Dubrovin, I. M., behaviour of zinc and lead

arsonites and arsenates at high temperatures, A., 575. Reaction of arsenious oxide with oxides of heavy metals at high temperatures, A., 1218.

Dubrovskaja, A., and Kobosev, N. I., adsorption properties of promoted iron oxide in relation to the distribution of the promotor in the oxide form of the ammonia catalyst, A., 1457.

Dubrul, L. See Gilard, P. Dubský, J. V., and Krametz, E., microdetection of beryllium with alkannin and naphthazarin, A., 812. Insoluble nitroprussides of metals, A., 948.

Krametz, E., and Trtilek, J., ferric complexes of antipyrino, A., 736. Reaction of ferric salts with pyramidone in presence of complex cyanides of iron, A., 947.

and Langer, A., application of copper ferrocyanide ammoniate in testing for calcium, A., 443. Constitution of compounds formed in A. Martini's micro-reactions, A., 1477.

and Okać, A., cause of the red precipitate of bismuth salts with bismuthiols, A., 1275.

Dubuisson, $M_{\cdot,\cdot}$ variations in impedance and chemical action during muscular contraction, A., 1016. Du Buy, H. G. See Ward, G.

Duce, W., solutions of hamoglobin stabilised with time. I. and II., A., 355. Action of ultra-violet irradiation on surface tension and viscosity of gelatin solutions, A., 935. Modifications of physico-chemical properties of protein solutions with age, A., 1012.

Duch, G., boiling under constant pressure, A., 787. Relations between functions of cohesion forces of liquids and their chemical function at b.p. under constant pressure, A., 1052.

Duchêne, R. See Aubert, M.

Duchesne, J. See Désirant, $M_{\bullet \bullet}$ and Rosen, B.

Duchon, L. See Loeper, M.

Duckham, A., and Duckham & Co., Ltd., A., anticorrosivo upper-cylinder lubricants, (P.), B., 630.

Duckham & Co., Ltd., A. See Duckham,

Duckworth, J., and Godden, W., partition of serum-calcium, A., 1401.

Ducloux, E. H., determination of fluorine in water by Sanchis' method, A., 177.

Duda, J. Seo Niklewski, B.

Dudding, B. P. See Gen. Electric Co.

Dudley, H. C., toxicology of selenium. I. Distribution of selenium in acute and chronic selenium poisoning. II. Urinary exerction of selenium, A., 1417.

Dudouet, M., resistant steels, B., 598.

Duecker, W. W., [sulphide] plastics, (P.),
B., 1112. Sulphur cement, (P.), B., 1154.

See also Hamor, W. A.

Duell, F. See Wolf, K. Düll, H., viscosity of "tricresol," B., 536. Determination of o-cresol mixtures by Potter and Williams' method, B., 632.

Dürichen, W. See Müller, Friedrich. Dürkopp-Werke Akt.-Ges., [perforated]

photographic printing paper [in strip or roll form], (P.), B., 173. See also Müller, F. H.

Dürrmann. See Sabalitschka, T. Dürrwang, J., rapid measurements of probe characteristics of a gas discharge by means of oscillograph tubes, A., 655. **Dufay**, J., Huggins' bands in spectrum of

the blue sky and temperature of the atmospheric ozone, A., 1176. See also Bloch, M., and Cabannes, J.

Dnfaycolor, Ltd., Wycherley, S. R., and Baker, T. T., colour photography, (P.), B., 1021.

See also Baker, T. T., and Chapman, W.

Duff, E. S., preservative and durability tests with native timbers of the copper belt of northern Rhodesia, B., 934.

Duff, J. D., Dietrich, L. E., and Duff & Sons, P., dehydrated flour mixes, (P.), B., 1067.

Duff, V. B. See Bodansky, M.

Duff & Sons, Inc., P. See Duff, J. D. Duffau, R. See Lecoq, R.

Duffendack, O. S., Wiley, F. H., and Owens, J. S., quantitative analysis of solutions by spectrographic means, A., 41.

and Wolfe, R. A., electrical-discharge tubes, (P.), B., 556.

See also Rabezzana, H.

Duffleux, M., and Grillet, L., new bands of nitric oxide, A., 660. See also Grillet, L.

Duffing, $G_{\cdot,\cdot}$ viscosity of cylinder oils, $B_{\cdot,\cdot}$

581. Dufford, R. T., evidence from Raman effect for a slight asymmetry of the carbon

atom, A., 1049. See also Emberson, R. M., and Skaggs, L. S.

Duffy, G. R., and Star Oil Refining Corp., re-refining of waste lubricating oil, (P.), B., 137.

Dufourt, A., and Laroux, P., effect of applications of irradiated cholesterolised lanoline on blood-cholesterol in pulmonary tuberculosis, A., 367.

Dufraisse, C., diradical formula of rubenes, A., 836. [Reversible chemical absorption of free oxygen by organic compounds], A., 836. Naphthacene structure of rubenes. I. and II., A.,

and De Carvalho, A. P., diphenacylfluorene; its relationship to fluor-cnylideneacetophenone, A., 1255.

and Gérard, M., anthracene structure of dissociable organic oxides; properties of anthracene photo-oxide, A., 1110. and Horclois, R., naphthacene structure of rubones. III.—V., A., 1499.

and Le Bras, J., mechanism of flame extinction by carbon tetrachloride, B.,

and Rocher, H., dissociable organic oxides; diphenyldi-p-bromophenyldibromorubene and its dissociable oxide, A., 197.

and Velluz, L., attempts to obtain rubenes solublo in water; hexabromotetraphenylrubene; its transformation into rubenepolycarboxylic acids, A., 326. Dissociable organic oxides; naphthacene formula of the rubenes; synthesis of 5:6:11:12-tetraphenylnaphthacene; its identity with tetraphenylrubene (old rubrene), A., 462. Naphthacene structure of rubenes. VI. Synthesis of 5:6:11:12-tetraphenylnaphthaeene: its identity with tetraphenylrubene (formerly known as rubrene), A., 1499.

Velluz, L., and Velluz, (Mmc.) L., dissociable organic oxides; 9-phenylanthracene and its derivatives, A.,

Dufrenoy. See Génevois, L.

Dugal, L. P., determination of oxidationreduction potentials [in biological media], A., 888.

Duggan, F. W. See Carbide & Carbon Chemicals Corp.

Duggar, B. M. See Hollaender, A. Dugone, S. See Durio, E.

Duirmont, E. I., and Goldenberg, S. D., offects of surface pretreatment of iron articles on resistance to corrosion of the phosphatic coating produced by the parkerising" process, B., 104. Effect of pretreatment of iron surfaces on anticorrosive properties of the phosphate film. II., B., 935.

Kupferhütte. Sec Duisburger I. Farbenind.

Duke, G. E. See Newland, W. Y. Duke-Elder, W. S. See Davson, H.

Dukes, H., effect of dilution on solubility of soil phosphorus, B., 422.

Dulac, J., conditions for maximum activity of copper sulphate fungicide, B., 468.

Dulière, W. L., technique for determination of fibrinogen in human blood: rate of coagulation of plasma, A., 497. Amino-groups of the proteins of human serum; action of formaldehyde and ninhydrin, A., 746.

Bacq, Z. M., and Brouha, L., physiology of the autonomous nervous system. VII. Phosphagen in the muscle of the sympathectomised cat, A., 385.

Hustin, A., and Bossaert, P., influence of novocaine anæsthesia on the fibrinogen content of the plasma and its ceagulation, A., 497.

Dulou, R. See Dupont, G. Dumas, O. See Bally, J. Dumazert, C. See Roche, J. Dummett, G. A., assessment of the carbonising properties of coals. II., B., 1074.

DuMond, J. W. M., and Bollman, V. L., Lauc X-ray reflexion in calcite, A., 1053. Validity of X-ray crystal methods of determining e, A., 1175, 1316.

and Pickels, W. M., jun., superiority of a Knudsen type vacuum gauge for largo metal systems with organic vapour pumps, its design and operation, A., 46.

and Watson, B. B., curved quartz crystal X-ray spectrograph, A., 305.

Dumont, E. See Hertel, E.

Dumont, P., and De Clerck, A., reaction of marshmallow root and the normal occurrence in it of acetic acid-soluble calcium, B., 1128.

Dunbar, C. See Imperial Chem. Industries. Dunbar, R. E., Cooper, D., and Cooper, R., pumice as a support for copper-chromium oxido catalysts in dehydrogenations, A., 942.

Duncan, A. B. F., ultra-violet absorption spectrum of ND₃, A., 1176.

Ells, V. R., and Noyes, W. A., jun.absorption spectrum of methyl ethyl ketone, A., 1178.

and Harrison, G. R., ultra-violet spectrum of ammonia. II. Rotational structure of bands in the Schumann region, A., 404.

Duncan, A. I. S. See Bolam, T. R. Duncan, C. W. See Huffman, C. F., and Long, J. W.

Duncan, G. R., Van Winkle, C. C., Mariette, E. S., and Fenger, E. P. K., precipitin reaction to phosphatides of tubercle and leprosy bacilli, A., 359.

Duncan, I. J., and Dustman, R. B., anthocyanin pigment of the wincsap apple,

A., 1435.

Duncan, J. T. See Topley, W. W. C.

Duncan, S. See Davies, J. G. Duncombe, G. H., jun. Soc Carter, W. K.

Dundore, M. W., and Beloit Iron Works, facing material for sand moulds, (P.), B., 603.

Dunez, A. See Demolon, A.

Dungern, M. F. von, does heavy water influence physiological processes? A., 1019.

and Nelz, G., clotting of blood and milk. I. Physical and chemical influences, A., 1136. Rennet test [for milk], A., 1405.

Dunham, G. S., and Socony-Vacuum Oil Co., handling of residual oils, (P.), B., 9. Distillation and conversion of hydrocarbons, (P.), B., 9.

Dunham, H. V., casein products, (P.), B.,

and Casein Manufg. Co. of America, products containing casein, (P.), B., 1126.

Dunham, K. C., and Peacock, M. A., xenoliths in the Organ batholith, New Mexico, A., 1088.

Dunhill, V. See Dunhill, Ltd., A. Dunhill, Ltd., A., and Dunhill, V., fuel for

pyrophoric lighters, (P.), B., 54. Dunin, M. S. See Agronomov, E. A. Dunker, M. F. W. See Jenkins, G. L.

Dunkley, S. F., heat-resisting glassware with special reference to tests for quality, B., 319. Dunleavie, C. E. See Short, A. A.

Dunlop, J. G., fate of procaine in the dog, A., 240.

Dunlop Rubber Co., Ltd., Murphy, E. A., and Madge, E. W., rubber and its preparation for manufacture, (P.), B., 656.

Twiss, D. F., and Carpenter, A. S., powdered substances, (P.), B., 48.

Twiss, D. F., and Jones, F. A., compositions from rubber, etc., (P.), B.,

Twiss, D. F., Jones, F. A., and Hadley, D. J., [accelerators for] vulcanisation of rubber, (P.), B., 382.

Twiss, D. F., and McCowan, W., vulcanisable compositions, (P.), B., 162.

Ward, A. N., and Trobridge, G. W., concentrating of latex, (P.), B., 1168.

Willshaw, H., and Blanchard, L. S., roller mills, etc., and [adjustable] guides therefor, (P.), B., 4.

Willshaw, H., Twiss, D. F., Goodhall, S. N., and Jones, F. A., treatment of balls, particularly golf balls, during a predetermined time interval, (P.), B., 69. Carrying out processes involving the presence of gas or vapour, particularly of a noxious or dangerous nature, (P.), B., 69.

Dunn, C., treatment of tobacco and product [powdered insecticide] therefrom,

(P.), B., 476.

Dunn, C. G. See Shoupp, W. E. Dunn, Cecil G., germicidal properties of phonolic compounds, B., 765.

Dunn, E. P. See Fluke, C. L.

Dunn, H. E. See Saklatwalla, B. D.

Dunn, J.S. See Imperial Chem. Industries. Dunn, J.T. See Fieser, L.F.

Dunn, M. S., and Loshakov, A., quantitative investigations of amino-acids and peptides. I. Quantitative formaldehyde titration using a glass electrode. II. Apparent dissociation constants in aqueous formaldehyde solution, A., 620, 681.

See also Butts, J. S., and Feraud, (Miss) K.

Dunn, W. C. See Denneen, F. S. Dunnewald, T. J., soil-solution changes in the arid profile, B., 658.

Dunnieliff, H. B., Kotwani, G. S., and

Hamid, M. A., action of hydrogen sulphide on chromates; potassium dichromate, A., 173.

Dunning, B., jun., Dunning, F., and Reid, E. E., substituted hydroxybenzyl alcohols, A., 1374.

Dunning, E. W. B. See Masterman, C. A. Dunning, F., and Hynson, Westcott & Dunning, Inc., preparation for protection against light of short wavelength, (P.), B., 1131. See also Dunning, B., jun.

Dunning, J. R., and Pegram, G. B., scattering of neutrons by H2O, D2O, paraffin, lithium, boron, and carbon, and production of radioactive nuclei by neutrons found by Fermi, A., 131.

Pegram, G. B., and Fink, G. A., capture, stability, and radioactive emission of neutrons, A., 1044.

See also Fink, G. A., Mitchell, D. P., Pegram, G. B., and Rasetti, F. Dunning, J. W. See Du Pont de Nemours

& Co., E. I., and Fulmer, E. I.

Dunning, R. G. See Commings, M. B. Dunningham, A. C., and Grumell, E. S., addition of water to boiler slacks, B., 4. See also Grumell, E. S.

Du Nouy, P. L., biochemistry and bio-

physics, A., 494. and Hamon, V., viscosity of diphtheria toxin-antitoxin mixtures, A., 748.

Dunoyer, L., mirrors obtained by evaporation in a vacuum, A., 698.

Dunsford, B. See Rigg, G. B.
Dunsheath, P. Seo Henley's Telegraph
Works Co., Ltd., W. T.

Dunson, J. B. See Whitehead. T. H. Dunstan, A. E., thermal polymerisation and condensation of gaseous hydro-

carbons, B., 306.

and Howes, D. A., conversion of petrol-cum gases into useful hydrocarbon products, B., 915.

Dunton, A. R., plastics for use in electrical

engineering, B., 1166.

Duparque, A., different petrological types of coals of the north of France, B., 529.

See also Ringard, H.

Dupire, A., boric esters of polyalcohols, A., 1092.

Duplate Corporation. See Dennison, B.J., Fix, E. L., and Zola, J. C.

Du Plessis, J.A. See Murray, G.N.Dupont, G., Raman effect in chemistry, A., 546. Selective catalytic hydrogenation by cold nickel. I. Ethylenic linking. II. Acetylenic linking, A.,

and Desreux, V., β-myrcene; reduction with sodium and alcohol, A., 1514.

and Dulou, R., presence of active sec. butyl alcohol in fermentation propyl alcohols; qualitative and quantitative analysis by Raman spectra, A., 187. Pyronenes, A., 1115. Oxidation of cyclohexane by hydrogen peroxide, A., 1238.

and Dulou, R. [with Desreux, V.], Raman spectra and structure of benz-

ene, A., 1319.

and Tabuteau, J., spectrograph with high illumination for Raman spectra, A.,

Dupont, R., catalysts for autoxidation of saturated cyclic hydrocarbons, A., 685. Autoxidation of cyclic ethylenic hydrocarbons. I., A., 712.

Du Pont Cellophane Co., Inc. See Brandenberger, J. E., Charch, W. H., Hyden, W. L., Leach, L. L., Wendler, A. F., and Wright, H. H.

Du Pont de Nemours & Co., E. I., separation of alcohols, (P.), B., 11. [Cyclic process of] distillation of methylamine mixtures, (P.), B., 11. Polymerisation of methyl methacrylate, (P.), B., 11. Mixed esters of polyhydric alcohols and of carbohydrates, (P.), B., 11. Non-gelatinous blasting explosives, (P.), B., 45. Naphthylaminesulphonic acids, (P.), B., 55. Impregnation of felted cellulosic fibrous materials [for artificial leather manufacture], (P.), B., 57*. Cyclic esters, (P.), B., 88, 871. Organic sulphur compounds, (P.), B., 89. [Phenol-alkyd] resinous compositions, (P.), B., 110. Emulsions of asphaltic and similar materials, (P.), B., 136. [Aryl]amines, (P.), B., 139. Treatment of raw silk, (P.), B., 141. Resorcinol, (P.), B., 182. Synthesis of phenol, (P.), B., 182. Organic cyanogen compounds, [cyanohydrins], (P.), B., 183*. Nitrocellulose, (P.), B., 187*. Moulding plastics, (P.), B., 207*.

Du Pont de Nemours & Co., E. I., water in oil emulsions, (P.), B., 261. Aqueous emulsions, (P.), B., 261. Intermediates for azo-dyes, (P.), B., 266*. Sizing of absorbent materials, (P.), B., 272. Cellulose-coated materials, (P.), B., 287. Cellulose derivative compositions, (P.), B., 287. Alkali cyanides, (P.), B., 319*. [Thioindigoid-]dyestuff intermediates, (P.), B., 361*. Coating and plastic compositions, (P.), B., 381. Pigmented coating compositions [containing acctylene polymerides], (P.), B., 463. Vulcanisation of rubber and accelerators therefor, (P.), B., 465. Vulcanisation of rubber, (P.), B., 405, 754. Hydrocyanic acid, (P.), B., 493, 1150. Hydrogen peroxide, (P.), B., 495. Alkali-metal addition products of aromatic hydrocarbons, (P.), B., 537, 684. Oil compositions suitable for use as softeners for cellulose derivatives, (P.), B., 559. [Manufacture and] application of [antiseptic] azo-compounds and compositions containing the same, (P.), B., 571. Picolinic acid and salts thereof, (P.), B., 634. Moulded articles, (P.), B., 654. Rubber compositions, (P.), B., 656. Cakes and other cake-like baked products, (P.), B., 666. Controlling gaseous reactions, (P.), B., 674. Stabilisation of motor fuels, (P.), B., 681. β-Chloroethanesulphonic acid, (P.), B., 683. Pigment colour from N-dihydro-1:2:2':1'-anthraqumoneazine, (P.), B., 688. Vat dye compositions, (P.), B., 733. [Vat] dyes of anthraquinone series, (P.), B., 782. Treatment of cellulose nitrate, (P.), B., 830. Conversion of olefines into sulphuric esters, (P.), B., 871. Reduction of hydrocarbons, (P.), B., 874. Cellulose esters [secondary propionates], (P.), B., 880. Laminated [glass] articles, (P.), B., 885. Hydrogenation of rubber, (P.), B., 946. Blasting detonators, (P.), B., 950. Lead tetra-alkyl, (P.), B., 973, 1144. Treatment of sheet materials for production of artificial chamois, (P.), B., 984. Bubble towers for production of nitric acid, (P.), B., 986. Vat-colour powders, (P.), B., 1033. Glyoxal sulphate, (P.), B., 1082. Coated [waterproof] fabrics, (P.), B., 1090. Metal-coated materials, (P.), B., 1102. Preparation of bread and other baked cercal foodstuffs, (P.), B., 1176, 1232. Ethers and esters of parasin wax, (P.), B., 1194. [Mould-inhibitors for] coating and plastic compositions, (P.), B., 1220. and Adamson, W. A., [dye] pigments, (P.), B., 160.

and Albrecht, H.O., rust-resisting coating

composition, (P.), B., 337. and Almquist, J. A., aldehydic compounds, (P.), B., 537. Protection of metal surfaces, (P.), B., 999.

and Alvarado, A. M., oil-acid varnish and product coated therewith, (P.), B., 109. Asphaltene varnish, (P.), B., 109.

and Arnold, H. R., butylamines, (P.),

Arnold, H. R., and Lazier, W. A., dehalogenation of organic halogen derivatives, (P.), B., 684.

Du Pont de Nemours & Co., E. I., Arnold, H. R., and Williams, T. L., [catalytic]

synthesis of amines, (P.), B., 1142.

Aydelotte, C. J., Caverly, W. R., and
Wright, W. H., removing sodium hydroxide from mixtures thereof with potassium hydroxide, (P.), B., 318.

and Barrett, H. J., asphaltic coating composition and material coated therewith, (P.), B., 337. Unsaturated aliphatic esters, (P.), B., 972. Esters of the aliphatic series, (P.), B., 1141. Beard, E. E., and Lulek, R. N., 1-nitro-

anthraquinone-6-carboxylic acid, (P.),

and Berliner, J. F. T., motor fuel, (P.), B., 731.

Berliner, J. F. T., and Plummer, R. W., motor fuel, (P.), B., 681.

Bishop, O. M., and Wuertz, A. J., anthraquinone derivatives [\$\beta\$-phenylbenzanthrones], (P.), B., 878. [Derived] dyes of the dibenzanthrone series, (P.), B., 878.

and Bond, H. A., apparatus for vaporisation of formamido, (P.), B., 139.

Bond, H. A., and Smith, L. B., oxidation of aliphatic alcohols to aldehydes, (P.), B., 873.

and Brill, J. L., ammonia recovery [from paper-pulp manufacture], (P.), B.,

and Brubaker, M. M. [plasticisers for] cellulose derivative compositions, (P.), B., 894.

Brubaker, M. M., and Thomas, R. E., [modified alkyd] resinous compositions, (P.), B., 896.

and Burdick, C. L., phenol recovery
[from gas liquor], (P.), B., 53.
[Frother for] flotation of minerals, (P.), B., 646. Flotation process [for

oxidised ores], (P.), B., 1048. and Burke, J. P., esterification process, (P.), B., 871.

and Buxbaum, E. C., purification of 4halogeno-l-N-methylanthrapyridones,

(P.), B., 876. Calcott, W. S., Carleton, P. W., and Stryker, H. I., colour lake, (P.), B., 510. Calcott, W. S., and Clarkson, R. G., metal

polish, (P.), B., 380. Amino-derivatives [detergents, etc.], (P.), B., 1142. Calcott, W. S., and Daudt, H. W., alkyl halides, (P.), B., 1140.

Calcott, W. S., and Douglass, W. A.,

compounding of rubber, (P.), B., 34. Calcott, W. S., Douglass, W. A., and Walker, H. W., preserving agents for animal and vegetable fats, fatty oils,

and soap, (P.), B., 379.

Calcott, W. S., Downing, F. B., and Somers, N. C., hydrazo-compounds and inversion thereof [to benzidines].

(P.), B., 488. Calcott, W. S., and Holt, L. C., anhydrous hydrogen fluoride, (P.), B., 1091.

Calcott, W. S., and Lee, I. E., stabilisation of motor fuels, (P.), B., 778.

Calcott, W. S., and Pedersen, C. J., wood

staining, (P.), B., 560.
Calcott, W. S., and Williams, I., disper-

sions, (P.), B., 816. and Callahan, M. J., protective finish [for metals], (P.), B., 510. and Canon, F. A., [catalyst for organic]

oxidation process, (P.), B., 585. Canon, F. A., and Zimmerli, A., benzyl esters of halogenated o-benzoylbenzoic acids, (P.), B., 488.

Du Pont de Nemours & Co., E. I., and Carleton, P. W., aminic acids, (P.), B., 91.

Carleton, P. W., and Woodward, J. D., [N-]alkylation of aromatic amines, (P.), B., 265. N-Alkylation of aromatic amines of the benzene and naphthalene series, (P.), B., 265. and Carlisle, P. J., stabilisation of halo-

genated hydrocarbons [trichloro-

ethylenol, (P.), B., 310.
Carlisle, P.J., and Harris, C. R., stabilisation of halogenated hydrocarbons, (P.), B., 870.

Carlisle, P. J., and Macallum, A. D., hydrocyanic acid, (P.), B., 493. and Carothers, W. H., alkylene esters of

polybasic acids, (P.), B., 780. Alkylene carbonate and process of making it, (P.), B., 823. [Trialkyl] lead phenolates, (P.), B., 1144. Carothers, W. H., and Berchet, G. J.,

[βy-]dichlorobutadiene, (P.), B., 487. Carothers, W. H., Berchet, G. J., and Jacobson, R. A., laminated article,

(P.), B., 1167.
Carothers, W. H., and Jacobson, R. A., alcohol [and thiol] addition products

of unsaturated compounds, (P.), B., and Carpenter, G. B., carboxylic acids,

(P.), B., 633, 920. Synthesis of organic compounds [aliphatic acids], (P.), B., 1081.

and Carr, J. I., diarylsulphones, (P.), B., 684.

and Castner, J. B., liquid explosive composition, (P.), B., 956. Nitration of aromatic hydrocarbons, (P.), B., 973.

and Chapman, F. F., gelatine dynamite composition, (P.), B., 125.

and Chilton, T. H., drying of acetylenic fluids, (P.), B., 487.

and Clarkson, R. G., non-corrosive [cooling] liquid, (P.), B., 1024. Clarkson, R. G., and Johnson, F. W.,

dyeing [with vat dyes], (P.), B., 787. Cochran, P. B., Hitt, M. V., and Taylor, L. V., [low-viscosity] cellulose nitrate, (P.), B., 366.

and Collins, A. M., [polymerised vinyl] coating composition, (P.), B., 752. Chemical product [mixtures of proteins with the additive product of vinylacetylene and hydrechloric acid],

(P.), B., 870.

Cook, J. B., jun., and Hutton, D., separation of mono- and di-alkylamines of the benzene series, (P.), B., 91.

Coolidge, C., and Holt, H. S., non-caking

pigments, (P.), B., 801. and Dahlen, M. A., azo-dyes [ico colours], (P.), B., 687. Water-soluble diazoamino-compounds, (P.), B., 875. Dyeing and printing textile materials [with azo-dyes], (P.), B., 1204.

Dahlen, M. A., and Carr, J. I., azoxyarylamines, (P.), B., 1083.

Dahlen, M. A., and Etzelmiller, E., production on the fibre of insoluble

azo-dyes, (P.), B., 882.

Dahlen, M. A., and Wirth, W. V., purification of musk-ambrette, (P.), B., 860.

and Daudt, H. W., alkyl halides, (P.), B., 971. Organic halides, (P.), B., 1140.

Daudt, H. W., and Parmelee, H. M., fluorination process, (P.), B., 919.

Du Pont de Nemours & Co., E. I., De Ropp, H. W., and Hetherington, H. C., prevention of corrosion in urea synthesis, (P.), B., 404. Urea synthesis,

(P.), B., 987.

Dietz, J. B., and Plummer, H. L.,
[waterproof flexible] abrasive, (P.),

Ď., 371.

and Dorough, G. L., polymeric lactide

resin, (P.), B., 337.
Douglass, W. A., and Jones, H. L. B., measurement and control of gaseous mixtures, (P.), B., 674.

Downing, F. B., and Bake, L. S., leadsodium alloy [for making lead alkyls], (P.), B., 281. Lead alkyls, (P.), B., 488. Downing, F. B., and Clarkson, R. G.,

non-corrosive aqueous liquid, (P.), B., 528. Acid inhibitor [for pickling

528. Acid inhibitor for process, solutions], (P.), B., 796.

Downing, F. B., Clarkson, R. G., and Deese, R. F., jun., substituted aminophenols, (P.), B., 685.

Downing, F. B., Parmelee, A. E., Pedersen, C. J., and Stecher, J. L., lead tetra-alkyl. (P.), B., 634. lead tetra-alkyl, (P.), B., 634. Downing, F. B., and Walker, H. W.,

stabilisation of motor fuels, (P.), B., 917. Acid-inhibiting agents, (P.), B., 1162.

and Dunning, J. W., fumigant, (P.), B., 1022.

and Dykstra, H. B., [plasticisers for] cellulose derivative [coating] composition, (P.), B., 560. [Oil-soluble] synthetic resin [from phenols], (P.), B., 653.

and Engelmann, M., alkoxyphenyliminazoles [glyoxalines; local anesthetics], (P.), B., 907. Preparation of aminobenzthiazole compounds [local anæsthetics], (P.), B., 1235.

and Ernst, A. H., decoration of glass, (P.), B., 276.

and Fox, A. L., amine hydrohalides, (P.), B., 633.

and Gilbert, H. N., alkali cyanides, (P.), B., 407, 987.

Gilbert, H. N., and Reichert, J. S., stabilisation of hydrogen peroxide solutions with pyrophosphoric acid plus a tin compound, (P.), B., 834.

and Graham, \hat{D} . P., 1-aroylamino-6aminoanthraquinones, (P.), B., 445.

and Graves, G. De W., chemical compound [mixed cellulose esters], (P.), B., 95. Esterification, (P.), B., 633. Esters of acids of phosphorus, (P.), B., 871. Catalytic production of alicyclic ketones, (P.), B., 1143. Cellulose derivative composition, (P.), B., 1218.

Graves, G. De W., and Lawson, W. E. [dodecyl] esters [of polycarboxylic acids], (P.), B., 360. Decyl and myristyl [tetradecyl] esters of polycarboxylic acids, (P.), B., 360. Myristyl [tetradecyl] esters of polycarboxylic acids, (P.), B., 360.

Gubelmann, I., and Goodrich, R. J., highly halogenated anthraquinone [di]acridones, (P.), B., S27. [Vat] dyes of the anthraquinonylaminoanthraquinone[di]acridone series, (P.), B., 827.

Outelmann, I., Goodrich, R. J., and Dettwyler, W., acridone-dianthrimide vat dyes, (P.), B., 586. Anthraquinoneacridone vat dyes, (P.), B., 586.

Du Pont de Nemours & Co., E. I., and Haag, I.L., purification of lactic acid, (P.), B., 920.

and Handforth, S. L., cooling of gases,

(P.), B., 963.

Handforth, S. L., and Baker & Co., Inc., catalyst for oxidation of ammonia, (P.), B., 273. Handforth, S. L., and Kirst, W. E.,

ammonia-oxidation process, (P.), B., 406.

and Hannum, C. W., motor fuel, (P.), B., 486.

and Hansley, V. L., acyloins [a-keto-alcohols], (P.), B., 442. Fatty acid osters of s-dialkylethylene glycols, (P.), B., 1194.

Harding, E. A., and Holt, D. A., composition for treating [case-hardening ferrous] metals, (P.), B., 106. Casehardening of steel, (P.), B., 280.

and Harris, C. R., lead sulphoeyanide [thiocyanate], (P.), B., 233.

Harris, C. R., and Fahs, J. L., stabilisation of hydrogen peroxide solutions, (P.), B., 594.

and Havas, E., phenylmercaptans and intermediates therefor, (P.), B., 360. Nitrite compound of 2-chloro-6-nitrobenzaldimereurioxide, (P.), B., 361. 2-Chloro-6-nitrobenzaldimereurioxide, (P.), B., 361. 2-Chloro-6-nitrobenz-

aldoxime, (P.), B., 361. and Hawkinson, A. T., purification of hydrogen peroxido solutions, (P.), B.,

495.

and Hawley, C. W., dicarboxylic acid esters, (P.), B., 1197.

and Hemming, C. B., [non-bleeding] graining ink, (P.), B., 652.

Hemming, C. B., and Pitman, E. C., decorating [metal] surfaces, (P.), B.,

Henke, C. O., and Prahl, M. A., ethers of hydroabietyl alcohol, (P.), B., 685. Hydroabietyl alcohols, (P.), B., 1143. Hydroabietoyl chloride, (P.), B., 1219.

and Hitt, M. V., composition and material [wrapping tissue] made therefrom, (P.), B., 366.

and Holt, D. A., case-hardening [of ferrous metals], (P.), B., 376.

and Holt, H. S., vulcanised asphalt oil and product containing it, (P.), B., 510. [Casein-alkyd resin] mouldable composition, (P.), B., 1167

Holt, H. S., and Schwartz, G. L., treatment of paper pulp, (P.), B., 366. Holt, L. C., and Daudt, H. W., aniline

hydrohalide preparation, (P.), B., 633.

and Hopkins, Horace H., resinous coating composition, (P.), B., 1109.
and Howell, E. T., dibenzanthrone compounds, (P.), B., 361.
and Hubbuch, L. P., esters derived from

hydrogenated castor oil, (P.), B., 1081. Iliff, J. W., Robinson, P., and Whitescarver, W., stencil paste, (P.), B.,

and Izard, E. F., esters of polycarboxylic acids, (P.), B., 89, 1141. Esters of polybasic acids, (P.), B., 263. [Plasticisers for cellulose derivative composition, (P.), B., 704, 752. Esters of unsaturated acids, (P.), B., 1194.

Izard, E. F., and Salzberg, P. L., lævulic esters, (P.), B., 872.

Izsak, A., and Funk, F. J., producing butyl alcohol and acetone [by fermentation], (P.), B., 1064.

Du Pont de Nemours & Co., E. I., and Johnson, E. L., shot shell [sportingcartridge case], (P.), B., 1022. and Johnson, F. W., fluoroaminoanthraquinone, (P.), B., 1083.

Kirst, W. E., McCoy, J. W., and Woodbury, C. A., blasting, (P.), B., 478. Blasting explosive cartridges and borehole charges, (P.), B., 956.

Kirst, W. E., and Thedieck, F. J. G.,

nitrites, (P.), B., 273.

Kirst, W. E., and Woodbury, C. A., ammonium nitrate explosive, (P.), B., 478.

and Koch, A. L., [metal] cleaning process, (P.), B., 999.

Krug, W. F., jun., and McDermott, F. A., production of glycerol by fermentation,

(P.), B., 120.

and Larson, A. T., aldehydic compounds, (P.), B., 11, 685. Aliphatic carboxylic acids, (P.), B., 264, 1193. [Carboxylic] acid synthesis, (P.), B., 264. Trimethylacetic acid, (P.), B., 441. Hydration of olefines, (P.), B., 919. Synthesis of organio aliphatic acids, (P.), B., 1193.

Larson, A. T., and Vail, W. E., carboxylic

acids, (P.), B., 920.

and Larson, L. L., paper sizing, (P.), B., 1203.

and Lawson, W. E., [plasticiser for] cellulose derivative composition, (P.), B., 110. Esters of higher aliphatic alcohols, (P.), B., 1081. Coating compositions, (P.), B., 1081. Isomer-

isation of rubber, (P.), B., 1113.

Lawson, W. E., and Salzberg, P. L., lævulic esters, (P.), B., 872.

and Lazier, W. A., condensation products, (P.), B., 487. [Catalytic] synthesis of amines, (P.), B., 1142. Hydrogenation of pyridine bodies, (P.), B., 1143. [Cellulose derivative] plastic composition, (P.), B., 1167. and Lednum, E. T., initiator [blasting cap], (P.), B., 1069. and Lee, H. R., [pure] quinizarin, (P.),

B., 585.

Lee, H. R., and Buxbaum, E. C., purification of 4-bromo-1-N-methylanthrapyridone, (P.), B., 876.

and Lenher, S., glyoxal [from acetylene], (P.), B., 54. Flotation process, (P.),

B., 999.

Lenher, S., and Mentzer, C. T., stable emulsions, (P.), B., 922.

and Lewis, H. A., low-density dynamite composition, (P.), B., 125.

Linster, J. T., Pray, H. B., and Lubs, H. A., [orange] sulphur colours, (P.),

and Loder, D. J., higher alkyl esters of the carboxylic acids, (P.), B., 488.

Loder, D. J., and Ries, E. D., monochloroisobutyric acids, (P.), B., 1141. and Lubs, H. A., N-p-aminophenyl-morpholine, (P.), B., 876.

Lubs, H. A., and Cole, J. E., arylamines, (P.), B., 1195. Textile printing, (P.), B., 1204. Printing, (P.), B., 1204.

Lubs, H. A., Cole, J. E., and Fox, A. L., o-aminoaryl mercaptans and derivatives thereof, (P.), B., 633.

Lubs, H.A., Fox, A.L., and Smith, R.A., arylthioglycollic acids, (P.), B., 91. Lubs, H. A., Hitch, E. F., and Dahlen,

M. A., arylamides, (P.), B., 1196. Lubs, H. A., and Strouse, G. C., N-paminophenylmorpholine, (P.), B., 876. Du Pont de Nemours & Co., E. I., and Lulek, R. N., anthraquinone derivatives, (P.), B., 686. Anthrathiazoleanthraquinonecarboxylimides, (P.), B.,

and Macallum, A. D., purification of lactic acid, (P.), B., 920.

McBerty, F. H., and Simon, K. C., aromatic amines, (P.), B., 1143.

and McKeown, J., alkali perborate, (P.), B., 273.

and Magill, P. L., treatment of solids with liquid [generation of hydrogen

cyanide], (P.), B., 833.

Magill, P. L., Dunning, J. W., and
Ressler, I. L., generation of toxic gas [hydrogen cyanide], (P.), B., 1036.

and Meuly, W. C., ionones, (P.), B., 444. and Muckenfuss, A. M., catalyst [for] and process of hydrogenating organic

compounds, (P.), B., 1195. and Northam, A. J., vulcanisation of rubber, (P.), B., 896.

Peck, F. W., and Knowles, F., N-di-hydro-1:2:1':2'-anthraquinoneazine, (P.), B., 445.

and Perkins, M. A., glyoxal sulphate, (P.), B., 488. [Di]benzanthronyl seleno-ethers, (P.), B., 489. Mixed benzanthrone-anthraquinone selenoethers, (P.), B., 489. [Di]anthraquinonyl seleno-ethers, (P.), B., 489. Benzanthrone seleno-ethers, (P.), B., 489.

and Pitman, E. C., [oil-resistant] insulated electrical conductor, (P.), B., 284.

Plummer, H. L., and Stone, Leslie F., [non-frosting coating composition containing] cured tung oil acid, (P.), B., 801.

and Powers, D. H., accelerator compound

[for rubber], (P.), B., 290. and Pranke, E. J., [sodium] cyanide process and product, (P.), B., 833. and Reichert, J. S., blue-printing, (P.),

B., 477. Storing and handling hydrogen peroxide solutions, (P.), B., 932. and Reid, E. E., polybasic acid esters of higher alcohols, (P.), B., 1081. and Richardson, Roger W., preparation

of ammonium sulphite or bisulphite solutions, (P.), B., 368.

Robinson, P., and Sorenson, B. E., light-coloured [alkyd resin] coating composition, (P.), B., 30. and Rodman, E., chemical product

[containing rubber] and its production,

(P.), B., 1009.

and Rothrock, H. S., polyhydric alcohols, (P.), B., 585. Chemical compound [condensation products of vinyl ketones], (P.), B., 873.

Sachs, J. H., and Peck, F. W., bromination of pyranthrone, (P.), B., 1083. Bromination of aromatic compounds, (P.), B., 1083.

and Schrauth, W., compositions of matter [perfume fixatives], (P.), B., 1130. and Schulze, F., carbohydrate derivative

[cellulose sulphate], (P.), B., 1088. and Schwartz, G. L., fibrous material, (P.), B., 785.

and Scott, N. D., condensation of alcohols, (P.), B., 870. Reaction of sodium with [naphthalene] hydrocarbons, (P.), B., 1197. Scott, N. D., and Hansley, V. L., high-

mol. wt. alcohols, (P.), B., 1141.

and Simon, K. C., aromatic nitro-compounds, (P.), B., 633.

Du Pont de Nemours & Co., E. I., and Sly, C., [cellulose derivative] resinous composition, (P.), B., 1167.

and Smith, W. A., purification of organic explosive compounds, (P.), B., 1237.

Sobatzki, R. J., and Bishop, O. M., anthraquinone vat dyes, (P.), B., 782. and Sorenson, B. E., modified polyhydric alcohol-polybasic acid resins and compositions containing them, (P.), B., 1111.

and Spaeth, C. P., ignition composition, (P.), B., 396, 621.

and Sparks, W. J., seed treatment, (P.),

B., 468. and Spiegler, L., 2'-nitro-2-carboxydiphenylamine, (P.), B., 874. [Purification] of [2-]methylanthraquinone,

(P.), B., 686. and Strouse, G. C., N-p-\beta-naphthylaminophenylmorpholine, (P.), B., 876.

and Taylor, G. B., recovery of acetylene from gases, (P.), B., 437.

and Taylor, H. S., purification [of nickel catalysts from sulphur], (P.), B.,

and Thompson, M. S., N-dihydro-1:2:1':2'-anthraquinoneazine and its

derivatives, (P.), B., 445.

Tilley, J. N., Whitehead, H., and Baker

& Co., oxidation of ammonia and catalyst therefor, (P.), B., 833.

Tinker, J. M., and Spiegler, L., p-nitro-o-anisidine, (P.), B., 443.

Tinker, J. M., and Stewart, W. C., recovery of 4-nitro-2-aminotoluene from

its nitration mixture, (P.), B., 443. and **Ubben**, R. T., [modified alkyd resin] baking enamel, (P.), B., 381.

and Vail, W. E., [aliphatic] earboxylic acid, (P.), B., 488.

and Weiland, H. J., aromatic hydrazo-

compounds, (P.), B., 875.

Weiland, H. J., and Buxbaum, E. C., purification of 4-halogeno-1-N-methylanthrapyridones, (P.), B., 876.

Weiland, H. J., and Prahl, M. A., sulphonation of rosin and its derivatives, (P.), B., 895.

Weiland, H. J., and Weinmayr, V. M., benzanthrone compounds, (P.), B., 92. Weinmayr, V. M., and Tinker, J. M., benzanthronecarboxylic acid, (P.), B.,

92. and Weller, S. L., vulcanisation of rubber, (P.), B., 1009.

and Williams, I., vulcanisation of rubber, (P.), B., 382.

Williams, I., and Dales, B., natural and artificial rubber latex, (P.), B., 511.

Williams, I., and Smith, C. C., plasticisation of rubber, (P.), B., 1221. Plastic rubber product, (P.), B., 1221. Rub-ber cement of high rubber content and low viscosity, (P.), B., 1221.

and Wirth, W. V., musk-ambrette, (P.), B., 860. m-Cresol [-tolyl] methyl ether, (P.), B., 875. tert.-Butyl chloride, (P.), B., 971. Musk xylene [2:4:6-trinitro-5-tert.-butyl-m-xylene], (P.), B., 1195. tert.-Butyl-m-xylene, (P.), B., 1195,

and Woodhouse, J. C., hydrogen [from natural gas], (P.), B., 19. Effecting organic vapour-phase reactions, (P.), B., 870. Formic acid, (P.), B., 919. Organic acids, (P.), B., 1193

Wuertz, A. J., and Dettwyler, W., chlorohenzoylaminoanthraquinones, (P.), B.,

Du Pont de Nemours & Co., E. I., Wuertz, A. J., Graham, D. P., and Perkins, M. A., aromatic selenium compounds, (P.), B., 92.

and Young, J. H., vulcanised fibre, (P.), B., 1087.

and Zimmerli, W. F., purification of molten metal [copper or its alloys], (P.), B., 106.

and Zwilgmeyer, F., separation of sec .and tert .. amines [of the benzene series], (P.), B., 91. Azo-dyes [pigments and ice colours], (P.), B., 977

Du Pont Rayon Co. See Altwegg, H., Bidaud, A. F., Bruggeman, J., Fiedler, S. O., Freund, H. H., Hyden, W. L., Kline, E., and Maxwell, R. W.

Du Pont Viscoloid Co., cellulose ether com-

positions, (P.), B., 652. See also Bren, B. C., Clewell, J. H., Eskew, R. K., Izard, E. F., Kuettel, G. M., and Marks, B. M.

Dupouy, G., thermomagnetism of rare-earth salts in solution, A., 556.

Dupuy, H., furnace, (P.), B., 623.

Duquency, M., "semi-corrosion-resistant" steels, B., 547.

Duran-Reynals, F., invasion of the body by animal poisons, A., 758.

Durand, H. W. See Brown, James H. Durand, J. F., m.p. and b.p.

series of homopolar substances, A., 1058.

and Wai-Hsun, L., eryoscopic constants, A., 1065.

Durand, M. A., temperature variation of the elastic moduli of NaCl, KCl, and MgO, A., 1328.

Durand & Huguenin Akt.-Ges., mordant [azo]-dyes, (P.), B., 55. Condensation products of the naphthalene series, (P.), B., 92. Coloured resists in dyeing with ester salts of leuco-vat dyes, (P.), B., 638. Solid stable sulphuric acid ester salts of leuco-vat dyes, (P.), B., 688. Mordant disazo-dyes, (P.), B., 733.

See also Haller, J. Durandeau, R., codling-moth control: arsenate or silicofluoride? B., 468. Durant, H. T. See Blomfield Eng. Co.

Durau, F., volumetric adsorption methods, A., 1225. Apparatus for production of metallic adsorption powders under nitrogen and other gases, A., 1355.

and Horn, A., adsorption of gases by virgin salt surfaces, A., 283.

and Tschoepe, G., adsorption isotherm for lead chloride as an adsorbent, A., 561. Preparation and measurement of adsorbing surfaces, A., 956.

Durbin, H. R., Posselt, E., and Internat. Cement Corp., [Portland] cement, (P.), B., 456.

Durdin, A. C., jun., and Chicago Pump Co.,

sewage treatment, (P.), B., 1238.

Durdin, J. V., and Markevitsch, A. M., solution of magnesium in aqueous organic acids, A., 689. Velocity of solution of magnesium in acids, A., 940.

Durio, E., by-products of dry distillation of calcium pyrolignite, B., 1080.

and Dugone, S., dioximes. CXIII., A., 1001.

Duriron Co., Inc. See Parsons, J. A. Durkee, M. M., soya-bean oil in the food industry, B., 1123.

Durkee Famous Foods, Inc. See Joyce, A. D.

Durrans, T. H., plasticisers in cellulose esters, B., 206.

and Davidson, D. G., plasticisers in cellulose ester plastics, B., 462.

Durrant, G. G., Griffith, R. O., and McKeown, A., kinetics of the nitriteiodine reaction, A., 1073.

Durrer, R., production of pig iron with the aid of electric energy, B., 597.

Durst, G., determination of small amounts of copper in fabrics, B., 56.

Durst, \hat{R} , determination of soap in refined oils, B., 107.

Durupt, A., Lagarde, J., and Bregou, P., presence, in the urines of certain women, of a substance antagonistic to the cestrous hormones, A., 252.

Duschinsky, F., and Pringsheim, P., ultra-violet fluorescence spectra of iodine vapour, A., 2.

Duschinsky, R., and Lederer, E., isolation of folliculin and equilenin by chromatographic adsorption, A., 252.

Dushman, S., elements of the quantum theory. V. The rigid rotator. VI. Hydrogen atom. VII. Van der Waals forces. VIII. Perturbation theory. IX. Helium atom. X. Hydrogen molecule. XI. Slater-Pauling theory of valency linkings, A., 7, 134, 1324.

Dusi, H. Sco Lvov, A.

Duspiva, F., determination of p_{Π} intestinal juice of the larvæ of clothes- and waxmoths by means of the glass electrode, A., 1139. Enzymie histochemistry. XXI. Proteolytic enzymes of the larvæ of clothes- and wax-moths, A., 1152.

See also Linderstrøm-Lang, K.

Dussek Brothers & Co., Ltd., and Thompson, A. W., impregnated dielectric materials, (P.), B., 798.

Dussen, A. A. van der, dust explosions, A., 34.

Dussy, J. See Rabaté, J.

Dustman, R. B., storago of black-walnut kernels, B., 856.

See also Duncan, I. J., and Garber, R, J,

Dutcher, R. A. See Guerrant, N. B.

Dutilloy, R., [beet] molasses and the saline quotient, B., 212. Du Toit, M. S. See Pugh, A. J.

Du Toit, P. J., Louw, J. G., and Malan, A. I., mineral content and feeding value of natural pastures in the Union of South Africa. IV. Influence of season and frequency of cutting on yield, persistency, and chemical composition of grass species, B., 617.

Malan, A. I., Groenewald, J. W., and Botha, M. L., effect of sulphur in diet on growth and wool production of sheep, B., 218.

See also Malan, A. I.

Dutt, A. See Ghosh, Sudhamoy. Dutt, C. P., injurious after-effects of juar [sorghum], B., 35.

Dutt, E. E., resinous substances similar in composition and properties to lac, (P.), B., 207. Dutt, P. N. See Mitter, P. C.

Dutt, S., Glycosmis pentaphylla and constitution and synthesis of its active principle, A., 396.

See also Agarwal, R. R., Misra, R. N., Mukherjee, M. K., and Sharma, V. N. Dutta, P. C., indigoid dyes. IX. Absorption spectra of isomeric thioindigoid dyes, A., 1518.

Dutton, W. C., orchard trials of dinitro-ocyclohexylphenol in petroleum oil for control of rosy apple aphis and San José scale, B., 1117.

Duttweiler, B. See Raw Products, Ltd.

Duyal, C., ebullioscopic constants, A., 424.

Ferric oxalate, A., 576. Constitution of mixed organo-magnesium compounds, A., 743. Structure of molecules in solution, A., 1071.

Duval, R., use of cobaltammines in photography, B., 524.

Duval d'Adrian, A. L., and Ingram & Duval, [pure] barium sulphate [from barytes, (P.), B., 273.

Duvall, H. M. Seo Drake, N. L.

Duveen, D. I., and Kenyon, J., resolu-

tion of a-furylmethylcarbinol, A., 858. Resolution of ayy-trimethylallyl alcohol into optically active forms, A., 1486.

Du Vigneaud, V., and Hunt, M., synthesis of d-carnosine, the enantiomorph of the naturally occurring form; depressor effect on blood pressure, A., 1268.

and Patterson, W. I., synthesis of djenkolie acid, A., 973.

Sealock, R. R., and Etten, C. van. utilisation of tryptophan administered subcutaneously, A., 369. See also Dyer, H. M., and Riegel, B.

Dux Chemical Solutions Co., Ltd., and Healey, C. J., [perforated] air-porous waterproof fabrics, (P.), B., 190.

Duxbury, D. L. See Nygaard, K. K.

Duyn, D. van, gas furnace with temperature control, A., 1354.
Dvernitzki, V. P. See Nachmanovitsch,

Dvinjaninova, L. See Volkov, E. Dvorkina, K. L. See Sergeev, M. E.

Dvornikoff, M. N., and Monsanto Chem. Co., salol, (P.), B., 954.

Dwight, C.H., and Kersten, H., illuminator for printing Laue photographs, A., 181.

Dwight & Lloyd Sintering Co., Inc. Sec Lloyd, T. E. Dwyer, F. P., chemical curiosity, A., 172.

Sensitive reagents for detection and determination of magnesium, A., 1082, 1220. Macro-detection of cobalt. I. and II., A., 1353, 1479.

and Hogarth, J. W., oxidation of cobalt amalgam, A., 1213.

Sec also Bishop, W. B. S.

Dybdal, E. C. See Hochwalt, C. A. Dyck, A. W., and McKibbin, R. R., non-

protein nature of a fraction of soil organic matter, B., 245.

Dyckerhoff, E. See N. V. Internat. Alfol Maats.

Dyckerhoff, H., and Kürten, H. F., blood coagulation, A., 497.

Dydo, M. Sec Niklewski, B.

Dye, J. A., exhaustibility of the sympathin stores, A., 526.

Dyer, C. P., and Merrimac Chem. Co., Inc., paper embodying alkaline-earth carbonate fillers, (P.), B., 1035.

Dyer, F. J., use of mice in standardisation of parathyroid hormone; effect of parathyroid on rachitic rats examined by the "line" test, A., 116. Dyer, H. M., and Du Vigneaud, V., utilis-

ation of glutathione in connexion with a cystine-deficient diet, A., 1410.

Dyke, W. J. C., and King, H., sulpharsphenamine; new method of preparation, A., 217.

H. B., acetylene polymerides Dykstra, and their derivatives. XXIII. Preparation and polymerisation of oxyprenes [β -alkoxybutadienes]. XXVI. Reaction of halogeno-ethers with vinylacetylene, A., 187, 1359.

See also Du Pont de Nemours & Co., E. I., and Grasselli Chem. Co.

Dykyi, J. See Dědek, J.

Dymond, G. C., report on clarification; analyses of evaporator scale and of juice ash; wax contents of filter-cake; use of dolomitic lime, B., 1173.

Dynamidon-Werk Engelhorn Co., G.m.b.H. See Meyerhofer & Co.

Dynamit Akt.-Ges. vorm A. Nobel & Co., heat-stable polystyrol, (P.), B., 511. Porous heat- and sound-insulating substances, (P.), B., 960.

Dzielepov, B. S. See Alichanov, A. I. Dziewoński, K., Bernakiewicz, L., and Gizler, L., action of thiocarbamide on aryl alkyl ketones, A., 999. Reactions of aryl alkyl ketones with thiocarbamide, A., 1126.

Gizler, L., and Moszew, J., reactions of mixed aromatic ketones with disubstituted thiocarbamides containing different aryl radicals, A., 211.

and Kowalczyk, E., 1-methylnaphthalene derivatives. III. A., 976.

Majewicz, T., and Schimmer, L., di-substituted derivatives of naphthalic acid, A., 984.

and Sternbach, L., reaction between benzoyl chloride and aromatic amines, and their products, compounds of the quinazoline series, A., 486.

Dziobek, L. See Jendrassik, L. Dzioma, V. F. See Turova-Pollak, M. B.

E.

Eagle, H., diazotization of proteins, A.,

and Vickers, P., reaction between diazotised sulphanilic acid and proteins, A., 837.

See also Harris, T.

Eagle, H. Y. Scc Wheeler, A. E.

Eagle-Picher Lead Co. See Gregory, F. E., and Harner, H. R.

Eagles, B. A., Okulitch, O., and Campbell, A. G., cheese-ripening studies; influence of yeast extract on types of streptococci found in starters, B., 1230.

Wood, A. J., and Bowen, J. F., cheeseripening studies; Wildier's bios and the lactic acid bacteria; fractionation of bios from lucerne and effect of fractions obtained on the vital activity of the Betacocci, B., 760.

See also Okulitch, O., and Sadler, W.

Eagles, R. H., and Huber Corp., J. M., carbon black, (P.), B., 679.

Eaglesfield, P. See Distillers Co.

Eames, A. J. See Wilson, B. D.

Earl, J. C., chemistry of diazoamino-compounds, A., 465.

See also Hall, N. F. B.

Earle, F., and Mearl Corp., sercen for receiving projected images, (P.), B., 621. Earle, I. P., influence of ingestion of colo-

strum on proteins of blood sera, A., 356. Earle, T., purification of sand [for glass manufacture], (P.), B., 320. Milling process [for roasted sulphide ores], (P.), B., 329. Ore leaching [for roasted sulphide ores], (P.), B., 329.

Earp, D. P., and Glasstone, S., dielectric polarisation and molecular-compound formation in solution. I. Structure of compounds of ethers with halogenomethanes and ethanes. II. Structures of compounds of acctone, quinoline, and dioxan with halogenomethanes, A., 150. Earwicker, G. A. See Balson, E. W.

Easson, L. H., and Stedman, Edgar, absolute activity of choline esterase, A., 1419. Easter, G. J., and Carbornndum Co., core

for and method of producing hollow refractories, (P.), B., 991. Furnace refractory, (P.), B., 1095. See also Benner, R. C.

Easthope, C. E., polarisability of molecular

hydrogen H₂, Å., 925. Eastlack, H. E., lacquer testing, B., 510. Eastman, Du B. See Texas Co.

Eastman, E. D., energy of removal of neutrons and a-particles from nuclei and a-instability below the radio-olements, A., 266. Heights of nuclear potential barriers, A., 403.

See also Pauling, L.

Eastman Kodak Co., photomechanical resists and compositions therefor, (P.), B., 172. Colour photography, (P.), B., 221, 300, 763, 1237. Sensitive photographic elements, (P.), B., [Sensitisation of] photographic silver halide emulsions, (P.), B., 1020. [Screening dyes for composite] sensitive photographic elements, (P.), B. 1020. Photographic emulsions and manufacture of dyes [sensitisers] therefor, (P.), B., 1069. Colourforming developers and processes of colour development, (P.), B., 1132.

and Babcock, G. S., photographically sensitive element, (P.), B., 955.

Beach, N. F., and McNally, J. G., moisture proof cellulose acetate sheet-

ing, (P.), B., 1147. Bramer, H. V., and Zabriskie, J. W., hydroquinones [quinols], (P.), B., 443. and Brooker, L. G. S., pyridinium iodides, (P.), B., 687.

and Capstaff, J. G., multicolour subtractivo photographic prints, (P.), B., 45. Photographic emulsion, (P.), B., 125.

and Carroll, S. J., cellulose organic ester composition containing an ether of diethylene glycol monoacetate, (P.), B., 752.

Carroll, S. J., and Smith, H. B., cellulosic composition containing a carbamate, (P.), B., 1167.

Carver, E. K., and Wynd, C. L. I., cellulose nitrate sheeting including imbibition, (P.), B., 785. Dickins, A. W. M., and Kocher, N. S.,

photographic dry-mounting tissue, (P.), B., 1132.

and Figg, L. J., jun., black paint material from hardwood pitch, (P.), B., 752. Emulsified wood [creosote] oils, (P.), B., 1079.

and Fordyce, C. R., photographic film, (P.), B., 572.

Fordyce, C. R., and Coleman, J. D., jun., cellulose mixed-ester coatings, (P.), B., 895.

and Hickman, K. C. D., photographic reversal process, (P.), B., 717.

Hickman, K. C. D., and Weyerts, W. J., process and solution for treating photographic images, (P.), B., 1236. and Hull, D. C., tripropionin, (P.), B., 585. Eastman Kodak Co., Kenyon, W.O., and Van Dyke, R. H., lactylcellulose esters, (P.),

B.,690. Wrapping material, (P.), B., 691. and McDougal, H. R., recovery of ingredients of plastic materials, (P.), B., 560.

McNally, J. G., and Schmitt, J. J., cellulose ester moulding composition containing a diacyl derivative of 1:4-

dioxan, (P.), B., 111. Malm, C. J., and Fletcher, C. L., organic acid esters of cellulose, (P.), B., 269. Fibrous esterification of cellulose, (P.), B., 588, 1146. Hydrolysis of organic acid esters of cellulose, (P.), B., 926. Stabilisation of [fibrous] cellulose esters, (P.), B., 1146. Cellu-

lose acetate isobutyrate, (P.), B., 1201. Malm, C. J., and Fordyce, C. R., treatment of cellulosic material prior to esterification, (P.), B., 587. [Cellulose acetate] composition of enhanced affinity for dyes, (P.), B., 882. Anhydrides of alkoxy-fatty acids, (P.), B., 1142. Cellulose derivatives containing phosphorus, (P.), B., 1146. Cellulose ester containing groups of dicarboxylic acids having hcterogeneous linkages, (P.), B., 1201.

Malm, C. J., and Nadeau, G. F., collulose acetate-carbamate, (P.), B., 95. Removal of catalyst from a spent liquor resulting from esterification of cellulose in fibrous form, (P.), B., 95.

Malm, C. J., Nadeau, G. F., and Diesel, N. F., alkoxyacetaldehydes and alkoxyacotic acids, (P.), B., 488.

Malm, C. J., and Waring, C. E., cellulose higher-acyl-radical lacquers, (P.), B.,

and Murray, A., photomechanical colour reproduction, (P.), B., 764.

and Murray, T. F., jun., cellulose acetate composition containing p-phenylp-phenylacetophenone, (P.), B., 1146.

Murray, T. F., jun., and Staud, C. J., light-filtering overcoating, (P.), B., 381. Hydrolysis of cellulose esters, (P.), B., 588. Mixed esters of cellulose, (P.), B., 1201.

Northrop, D. E., and Burton, R. C., refining of organic acid esters of cellulose, (P.), B., 1201. and Othmer, D. F., countercurrent

liquid-extraction apparatus, (P.), B.,

Richardson, E. E., and Staud, C. J., cellulose acetate protective coating, (P.), B., 1109.

and Russell, H. D., photographic developer, (P.), B., 860, 1132. and Seel, P. C., moisture-resistant fila-

ments of cellulose acetate, (P.), B., 313.

Sheppard, S. E., and Eberlin, L. W., comminution of cellulosic materials, (P.), B., 927.

Sheppard, S. E., and Hudson, J. II., compressed-foam gelatin, (P.), B., 561.

Sheppard, S. E., and Vanselow, W., sensitive photographic material, (P.), B., 1180.

Slack, A. D., and Young, A. A., antistatic thin sheeting, (P.), B., 785.and Smith, H. B., collulose ester com-

position containing pinacol, (P.), B., 337. Cellulosic composition containing an alkyl phosphate, (P.), B., 1167. Cellulose mixed and higher ester compositions containing trialkyl phosphates, (P.), B., 1167.

Eastman Kodak Co., Staud, C. J., and Coleman, J. D., jun., esterification of cellulose with a modified perchloric acid catalyst, (P.), B., 588.

Staud, C. J., and Fletcher, C. L., mixed organic esters of cellulose, (P.), B., 785.

Staud, C. J., and Minsk, L. M., cellulose acetate composition containing ethylene chloride and a hydroxyl plasticiser, (P.), B., 313. Hydrolysis of cellulose esters, (P.), B., 690. Colloidising cellulose acetate with ethylene chloride, (P.), B., 690.

Staud, C. J., and Van Dyke, R. H., propionation of cellulosic material, (P.), B., 588. Moisture-resistant

thread, (P.), B., 1146.

Staud, C. J., and Yackel, E. C., extraction of cellulose esters, (P.), B., 1201. and Stone, H. G., artificial silk, (P.), B., 588. Denatured alcohol, (P.), B., 1122.

and Taylor, E. R., cellulose acetate composition comprising a tert.-alcohol, (P.), B., 588.

Webber, C. S., and Staud, C. J., changing solubility of cellulose acetate, (P.), B., 313.

Yackel, E. C., and Kenyon, W. O., preparation of cellulose for its fibrous esterification, (P.), B., 1087. Eastwood, A. H. See Key, A.

Eastwood, H. B., and Hartford-Empire Co., glassware lehr construction, (P.), B., 147.

Eastwood, P. R., bleachability determination [for pulp], and its relation to

sulphite cooking, B., 1086.

Eaton, A. G., Cordill, S. C., and Gouaux, J. L. [with Clay, V.], is the work of the kidney (due to excretion of urea) a factor in specific dynamic action? A., 507.

Eaton, L. B., and Kalite Co., Ltd., acoustical concrete, (P.), B., 321. Acoustical plaster, (P.), B., 321.

Eaton, S. V., influence of sulphur deficiency on metabolism of soya bean, A., 394.

Eaton, W. W., collisions of α -particles with neon nuclei, A., 132.

Eavenson, A., chemistry of wool, B., 404. Eaves, C. A., gas-storage research [on fruit], with reference to studies in Great Britain and preliminary trials at the Central Experimental Farm, Canada, B., 346. Effect of a series of temperature changes on respiratory activity of apples during the post-climaeteric in senescent decline, B., 1012.

Ebaugh, I. A. See Texas Co.

Ebe, T., determination of mineral matter in soft rubber goods with active turpentine oil as solvent, B., 511.

Ebeling, W., effect of paraffin wax emulsions on oil-depositing properties and insecticidal efficiency of oil sprays, B., 756. Interval method of applying oil sprays for control of California red scale on lemons, B., 1117.

Eberlein, L., uses of skim-milk, B., 855. Products manufactured from skim-milk

and whey, B., 1123.

Eberlin, L. W. See Eastman Kodak Co.

Eberly, F. See Dains, F. B. Ebers, E. S. See Bent, H. E.

Eberson, F., cultivation of poliomyelitis virus, A., 899.

Eberstadt, L. See Brecht, W.

Ebert, F., and Flasch, H., lower oxides of tungsten, A., 174.

Ebert, H., transformation of fluids into the glassy state, A., 1328.

Ebert, J., and Farastan Co., antiseptic, (P.), B., 907.

Ebes, K. See Olivier, S. C. J. Ebihara, I. See Miyata, A.

Eblé, L. Sec Brazier, C. E.

Ebner, O., extracts from coffee and tea, (P.), B., 123.

Eccles, T. Sco Brit. Celanese.

Echenique, L., and Suarez, B., effect of diet on milk: chemical modification and sensitisation to the alcohol test, A., 97.

Echols, L. S., jun., and Pease, R. N., decomposition of gaseous paraffins induced by ethylene oxide, A., 1090. Eck, H. See Erk, S.

Eck, Hubert. See Schöberl, A.

Eck, L. J., use of special oil for enrichment of carburetted water-gas, B., 914.

Eck, M. Y., electrolytic gas generator, (P.), В., 66.

Eckardt, B. See Tropp, C.

Eckardt, F., urinary diastase, A., 99. Eckardt, W. (Iserlohn), [nickel] deposits low in hydrogen, B., 551.

Eckardt, W. (Jena). See Brintzinger, H. Eckardt Akt.-Ges., J. C. See Scholz, W. Eckart, H., characterisation of pectin extracts, B., 904.

Eckart, O., working up of used bleaching earths, B., 285.

Eckel, J. C., vitreous enamel-coated [iron]

sheets, (P.), B., 595. Eckerson, S. H. See Farr, W. K. Eckert, E. A. See Polayes, S. H.

Eckert, F., toughening or hardening of

glass or glass objects, (P.), B., 1207. Eckey, E. W., and Procter & Gamble Co., composition of fatty matter and its stabilisation, (P.), B., 285.

Eckhardt, F., theosan and its combinations, A., 375.

Eckhoff, K. See Reichel, L.

Eckles, C. H., Palmer, L. S., Gullickson, T. W., Fitch, C. P., Boyd, W. L., Bishop, L., and Nelson, J. W., effects of uncomplicated phosphorus deficiency on æstrus cycle, reproduction, and composition of tissues of mature dairy cows, A., 628.

Eckman, H. A., Maack, H. W., and Crane Co., inhibitor for nitriding processes, (P.), B., 280.

Ecksol Corporation of America. See Beck. L. L.

Eckstein, H. C., amino-acids in human skin, A., 879.

and Treadwell, C. R., effect of ingested fat on sterol metabolism of the white rat, A., 234.

Economy Fuse & Manufacturing Co. See Cherry, O. A., and Dearing, M. C.

Eddington, (Sir) A. S., pressure of a degenerate electron gas and related problems, A., 263. Theory of the Stern-Gerlach effect, A., 920.

Eddison, C., and Radio Corp. of America, coating iron with carbon, (P.), B., 998. See also Marconi's Wireless Telegraph Co.

Edds, R. See Buehler, C. A.

Eddy, C. W., effect of catalysts on absorption rate of oxygen by orange juice, B., 713.

See also De Eds, F.

Eddy, H. C., and Petroleum Rectifying Co. of California, electrical treatment of emulsions, (P.), B., 283.

Eddy, J., and Rohrman, F. A., effect of mixed acids on irons and steels, B., 321.

Eddy, N. B., phenanthrene derivatives. V. Homologous acids and aldehydes and some of their derivatives. VI. Amino-alcohols of the ethanolamine and propanolamine type, A., 106, 240. [Pharmacology of] morphine, codeine, and their derivatives. IX. Methyl ethers of the morphine and codeine series. XII. Isomerides of morphine and dihydromorphine, A., 634, 892.

and Howes, H. A., [pharmacology of] morphine, codeine, and their derivatives. X. Deoxymorphine-C, deoxycodeine-C, and their hydrogenated derivatives, A., 107.

Edeleanu Ges.m.b.H., treatment of waxes, fats, or mixtures of higher fatty acid esters, or of higher alcohols, (P.), B., 204. Recovery of solvents from fractions obtained on extracting oils and similar liquid raw material with a mixed solvent, (P.), B., 403. Recovery of solvents,

more particularly in de-paraffination of hydrocarbon mixtures, (P.), B., 1139. Edelman, P. E., and Mack, R. T., polarising electrolyte, (P.), B., 507. Electrolytic apparatus, (P.), B., 797. Filming faluritium lettle for condensors (P.) [aluminium] metal for condensers, (P.), B., 940. High-voltage electrolytic couple, (P.), B., 1051.

Edelmann, L., and Edelmann & Co., E.,

thermohydrometer, (P.), B., 723. Edelmann & Co., E. See Edelmann, L. Eden, A. See Woodman, H. E.

Eden, T., field experiments in agricultural

research. II., B., 35. Edenholm, M., and Olsson, G., stem correction for mercury thermometers, A.,

Edens, E., testing potency of digitalis preparations on man, B., 1127.

Edgar, R. See Barr, M., Ross, J. E., and Walde, E.

Edgars, N. K., glucosido from blue-berry leaf, A., 1036. Edgcumbe, K. See Holophane, Ltd. Edge, S. R. H., increase in [paper] strength on beating, B., 94. Pitch problems [in

paper mills], B., 784. Edgington, B., and Firth, J. B., reactions of selenium oxychloride and selenium tetrachloride with pyridine, A., 998.

Edgington, B. H. See Kick, C. H.

Edin, H., Berglund, N., and Andersson, Y., conservation of green fodder. III.

Marrow-stemmed kale; ensilage prepared from kale and swede tops, B., 569.

See also Platon, B. Edison General Electric Appliance Co., Inc. See Sutton, R. J.

Edkins, R. P., and Linnell, W. H., halogen analogues of adrenaline and ephedrine. II. Derivatives of acetophenone. III. Derivatives of propiophenone, A., 851,

Edland, L. A., and Vanderbilt Co., Inc., R. T., hard rubber, (P.), B., 465.

Edlbacher, S., and Gerlach, Werner, copper content of Jensen sarcoma in relation to that of the organs, A., 1539.

and Jucker, P., purine-nitrogen content of organs of rats on various diets and suffering from avitaminosis and Jensen sarcoma, A., 883.

and Zeller, A., optical specificity and activation of arginase, A., 1420.

Edlefsen, N. E., and Cole, R. C., comparison of sp.-gr. balance and pipette methods of determining density of soil suspensions, B., 1170.

See also Cole, R. \acute{C} .

Edlén, B., arc spectra of lluorine and potassium, A., 261. Analysis of 3d—4f for C II, N III, and N II; intercombinations in C II and N III, A., 397. Na I-like spectra of the elements titanium to copper (Ti xII-Cu xIX), A., 654. Na i-like spectra of the elements potassium to copper, K IX—Cu XIX., A., 915. Optical L spectra of chlorino, Cl VIII, Cl IX, Cl X, and Cl x1, A., 1039.

and Tyrén, F., optical L spectra of elements potassium to chromium:
K x, K xi, Ca xi, Ca xii, Se xii,
Ti xiii, V xiv, and Cr xv, A., 1169.

Edlund, K. R. See Bataafsche Petroleum Maats., and Evans, T. W.

Edmister, W. C., thermodynamic properties

of methane, A., 1330.

Edmonds, W. R. See Johnstone, E. W.

Edmundson, R. E., baryte deposits of Virginia, A., 1087.

Edsall, G. See Gilligan, D. R. Edsall, J. T., Raman spectra of aminoacids and related compounds. I. Ionisation of the carboxyl group, A., 269.

Edson, F. H. See Standard Oil Development Co.

Edson, M. See Beall, D.

Edson, N. L., ketogenesis-antiketogenesis. III. Metabolism of aldehydes and IV. Substrate dicarboxylic acids. competition in liver, A., 1547.

and Krebs, H. A., micro-determination of

uric acid, A., 873.

Krebs, H. A., and Model, A., synthesis of uric acid in the avian organism: hypoxanthine as intermediary metabolite, A., 1290.

See also Cook, R. P.

Edwardes, J., and Heveatex Corp., rubber goods from latex, (P.), B., 244.

Edwardes, W. F., surfacing materials [for tennis courts, etc.], (P.), B., 934.

Edwards, A. H., and Jones, J. H., occurrence of phosphorus in fusain, B.,

Edwards, A. J., Walton, H. F., Bell, R. P., and Wolfenden, J. H., electrolytic separ-

ation of deuterium, A., 436. Edwards, C. A., Phillips, D. L., and Cullick, W. H. E., influence of varying degrees of cold-rolling and annealing temperatures on properties of mild-steel sheets. I. Influence of cold-rolling and subsequent annealing temperatures on the Erichsen values and crystal structure of thin mild-steel sheets, B., 742.

Phillips, D. L., and Pipe, C. R., influence of varying degrees of cold-rolling and annealing temperatures on properties of mild-steel sheets. II. Effects of varying degrees of cold-rolling and annealing temperatures on properties of motor-car body sheets, B., 742. Edwards, C. W. See Cleaves, A. P.

Edwards, D., Holland, W., and Johnstone, H. W., groundwood studies, B., 94.

Edwards, D. F. See Standard Oil Development Co.

Edwards, D. V., and Smith, E. K., cathode [for electron-emission devices] and its preparation, (P.), B., 1052.

Edwards, F. W., Parkes, E. B., and Nanji, H. R., analysis of iodine ointments, B.,123. Determination of available and total carbon dioxide in baking powders and self-raising flours, B., 232.

Edwards, H. D. See Linde Air Products Co. Edwards, H. T. See Dill, D. B., and

Johnson, R. E. Edwards, H. W., high-speed oil-diffusion pump, A., 1085.

Edwards, J. See Boomer, E. H. Edwards, J. D., and Wray, R. I., permeability of paint films to moisture; effect of humidity, temperature, and

ageing, B., 650.

See also Aluminum Co. of America.

Edwards, J. G., and Langley, W. D., microdetermination of ferrocyanide in muscle and urine, A., 536.

Edwards, M. C., Congdon, J. V., and Socony-Vacuum Oil Co., sulphurisation

of pine oil, (P.), B., 801.

Edwards, P. W., and Leinbaeh, L. R., explosibility of agricultural and other dusts as indicated by maximum pressure and rate of pressure rise, B., 253.

Edwards, R. E. See Audrieth, L. F. Edwards, R. S., significance of waterpermeability tests on vegetable-tanned sole leather, B., 421.
Edwards, R. T. See West, W.
Edwards, S. H. See Standard Oil Co. of

California.

Edwards, W. Seo Wilson, G. V. Edwards, W. D., Gray, K. W., Wilcox, J., and Mote, D. C., blackberry mite in Oregon, B., 757.

Eekelen, M. van, determination of vitamin-A in body-fluids, A., 646. Effect of oxidases on determination of ascorbic acid, A., 647.

and Emmerie, A., determination of ascorbic acid, A., 255.

See also Emmerie, A.

Eerola, L. V. See Virtanen, A. I.
Efendi, P. H. See Giršavičius, J.
Effkemann, G., and Herold, L., liver enlargement following administration of anterior pituitary and organ extracts, A., 1030.

See also Anselmino, K.J.

Effront, I. A., and Deslandres, P., use of enzymes in panification, B., 471.

and Popper, A., periodical or continuous manufacture of fermentation organism, such as yeast, or of other fermentation products, (P.), B., 951.

Efimov, P. See Pakschver, A. Efremenko, T. I., nuclear structure and

isotope systems, A., 1046. Eiremov, G. L., eyanite as high-refractory raw material, B., 408.

and Kumanin, K. G., use of highly aluminous material in manufacture of pots for melting optical glass, B.,

Efremov, V. V., vitamin- B_2 complex in millet, A., 905.

and Jarussova, N., vitamin- B_2 complex in distiller's yeast, No. 12, A., 905.

Efremova, E. M. See Tziurich, L. G. Efremova, T. N. See Kazarnovski, S. N. Effina, E. P., preparation of a Paal-type mixture from proteins of various origins, B., 44.

Eitonham, C. F., bleaching plushes and velvets—silk and rayon mixture fabrics, B., 736.

Egami, F. See Aubel, E., and Egbert, W. See Kerns, F. W. See Aubel, E., and Soda, T. Egerton, A., Smith, F. L., and Ubbelonde, A.R., determination of combustion products from the cylinder of the petrol engine and its relation to knock, B., 7. See also Ubbelohde, A. R.

Egg, K. See Maschinenfabr. Cham Akt .-Ges.

Egge, W. S. See Bonney, R. D.
Eggelsmann, F., welding magnesiumalloyed light metals, B., 936.

Eggert, Johann, preparation of straw cellulose, B., 979.

Eggert, John, important light-sensitive systems, B., 172. Protein-liquefying compounds as softeners [for gelatin]. B., 209.

and Küster, A., Callier quotient and mean grain diameter of developed photographic layers, B., 1131.

See also Arens, H., and Biltz, M. Eggert, W., jun., fertiliser and method of fertilising, (P.), B., 757. Egidius, T. F. See Gleditsch, E.

Egli, M., apparatus for regulating automatic heating, cooling, and similar plants, (P.), B., 2.

Egloff, G., and Morrell, J. C., alcohol-gasoline as motor fuel, B., 1076.

and Nelson, E. F., heat- and pressurecracking of Iraq crude oils, B., 402. Modern cracking process, B., 774. See also Morrell, J. C., Tropsch, H., and

Universal Oil Products Co.

Egner, K., progress in improvement of wood, B., 934.Egorov, A. D., and Nikolaev, V. I., Abalach

soda lake in Jakutia, A., 816.

Egorova, I. V. See Golbreich, J. V. Egorova, L. V. See Odintzov, P. N.

Egorova, O. See Stadnikov, G. L. Eguchi, J. See Aoyama, Shinjiro.

Eguchi, T., synthesis of methyl alcohol from coal, B., 732.

Egyesúlt Izzólámpa és Villamossági Részvénytársaság, gas-filled electric incan-descence lamps, (P.), B., 377. Ehlers, C., particlo size of graphite in

colloidal graphitised oils, B., 916. Ehlers, J. H. See Rohmann, C. Ehrenberg, H. See Lachelle, C. E. Ehrenberg, M. See Hüttig, G. F.

Ehrenberg, P., supply of iron to cultivated plants, A., 1163. Theoretical considerations in modern manuring, management, and utilisation of grassland, B., 384.

and Nietsch, H., feeding wood-sugar yeast as a protein supplement to working horses; replacement of oat feed by dried slices or potato flakes with wood-sugar yeast, B., 953.

and Prittwitz, von, replacement of oilcake protein by ammonium bicarbonate during feeding of beet silage to

milch cows, B., 615. Ehrenberg, W., excitation of nuclei by

neutrons, A., 132. Connoxion between cosmic-ray showers and bursts, A,

Ehrenfest, E. See Ronzoni, E. Ehret, W. F., and Greenstone, A., thermal decomposition of CrO₄,3NH₃, A., 40.

Ehrhardt, K., sex glands, particularly in connexion with the corpus luteum hormone, A., 527.

and Hagena, A., corpus luteum hormone, A., 1428.

and Kühn, K., artificial (hormonal) growth of the oviduet in female earp, A., 389.

Ehrisman, H. O., moisture control on paper machines, B., 830.

Ehrismann, O., absorption of dust through respiration. II. Absorption of pyrolusite dust, A., 874.

and Noethling, W., absorption spectra of pyocyanine, prodigiosin, and viol-

acein, A., 545.

Ehrlich, F., [isolation of crystalline dgalacturonic acid from tobacco], A., 706. Pectin problem, A., 1489.

Guttmann, R., and Haensel, R., enzymes of pectin. III. Complete direct hydrolysis of pectolic acid to d-galacturonic acid by pectolase, A., 110.

and Haensel, R., pectin of ramie bast, A., 258. Composition of apple pectin and its fermentative degradation, B., 569.

Ehrlich, H. See Fischer, R. Ehrlich, P. See Biltz, W.

Ehrmann, C. See Hungarian Rubber Goods

Ehrmann, K. See Müller, Ernst.

Eibner, A., yellowing of oil films. I.—IV., B., 286, 461, 702.

Eichberger, R., action of potassium oxalate on living protoplasts of Allium cepa, A., 123.

Eichelberger, R. A. See Deisenroth-Missovski, M.J.

Eichelman, F. J., and Carbo-Oxygen Co., oxygen from liquid air, (P.), B., 233.

Eichengrün, A., anti-freezing agent, particularly for use in motor vehicles, (P.), B., 255. Production of moulding powders [from acetylcollulose, etc.], (P.), B., 654.

and Celanese Corp. of America, [noncombustible, cellulose acetate-]coated wirecloth, (P.), B., 281.

Eichholtz, F., and Keil, W., chemical and biological processes in ensilage,

Eichinger, A. See Ros, M.
Eichler, A. See Altwegg, H.
Eichler, E. See Pongratz, A.
Eichler, H., fluorescence thermoscope, A., 696. Detection of organic solvents and organic compounds with Magdalared, B., 310. Eichler, M., tear-tempering of glass rods,

B., 320. Eichler, O., methylene-blue thorapy and its

scientific foundation, A., 633.

Eichmann, T., and Internat. Carbonic Eng. Co., solidification of carbon dioxide, (P.), B., 19.

See also Rufener, H.

Eichner, C. See Lombard, V. Eichstädt, K., and Oxford Varnish Corp., patterning [leather], artificial leather or oileloth and similar band-forming

material, (P.), B., 1114. Eickemeyer, R. See Scholler, H. Eickhoff, T. H. See Zorn, W. M.

Eickholz, W. See Biltz, W. Eide, A. C., properties of zine oxide influencing weathering of paints, B., 242.

and Amer. Zinc, Lead & Smelting Co., [zinc oxide] pigments, (P.), B., 463. and Depew, H. A., evaluation of zinc

oxide for paint, B., 559. Eide, P. M. See Marshall, James. Eidelman, M. M. See Vinokurov, S.

Eidinow, A., photodynamic sensitisation; biological action and therapeutic application, A., 1019. Eidman, S. A. See Kasebevnik, L. D

Eiduks, J., rapid determination of purity of technical gypsum, B., 1206. Latvian clays as raw material for production of clinker, B., 1208.

Eidus, J. See Balandin, A. A. Eiland, E. M. See Basore, C. A.

Eilender, W., and Cornelius, H., influence of nitrogen and oxygen on occurrence of voining in ferrite, B., 277. Walz, A., and Meyer, O., scaling which

frequently occurs in saw-blades, B., 1098.

See also Meyer, O.

Eiler, J. J. See Allen, Frank W.

Eilers, H., different types of asphalt bitumen emulsions in relation to their uses, B., 306.

and Korff, J., significance of electrical surface phenomena for stability of hydrophobic dispersions, A., 934. See also Staudinger, H.

Einhorn, E. See Badilkes, S. Einhorn, N. H., and Rowntree, L. G., biological effects of thymectomy in successive generations of rats, A., 1031. Biological effects of homologous thymus implants in successive generations of rats, A., 1158.

Einsporn, E. See Schönrock, O. Eirich, F., Bunzl, M., and Margaretha, H., viscosity of suspensions and solutions. IV. Viscosity of sphere suspensions. VI. Viscosity of rod-like suspensions, A., 562, 679.

Eiseman, B. J., jun., absorption spectra of oxygen at high concentration, A., 127.

Eisenkolb, F., deep-drawing capacity of the harder carbon steels, B., 887.

Eisenkolbe, P. See Fingerling, G.

Eisenmann, (Mrs.) J. Z. K., magneto-and electro-optical properties of pazoxyanisole, A., 1447.

Eisenmann, K., Scholz, E., Wolf, K., and Unyte Corp., [binder for] abrasive, (P.),

Eisenmenger, W. S., toxicity of aluminium salts to tobacco plants, B., 422.

See also Darnell, M.C., jun. Eisenstecken, F. See Daeves, K.

Eisler, B., Hammarsten, E., and Theorell, H., separation of hæmatopoietic principles from liver, A., 624.

Rosdahl, K. G., and Theorell, H., photoelectric micro-determination of copper, A., 1038. Cataphoretic investigation of state of copper in blood-serum, A., 1401.

See also Schittenhelm. A.

Eisler, O., Zamrzla, Z., and Weinkopf, M., continuous tar distillation in Koppers pipe stills, B., 1187.

Eisler Electric Corporation. Sec Laise, C. A.

Eisner, H. See Halban, H. von.

Eisner, J., apparatus for pre-defecation [of sugar juice], B., 900. Apparatus for mixing liquids, (P.), B., 304.

Eistert, B., synthesis of 3-hydroxynaphthyl-2-acetic acid and of acylcarbinols, A., 844. So-called "valency tautomerism '' of unsaturated systems, A., 1513.

See also Arndt, F. Eitel, H. See Müller, Reinhard.

Eitel, W., theoretical basis of behaviour of cements in concrete-road construction, B., 545.

Eitel, W. W., McCullough, J., and Heintz & Kaufman, Ltd., oxide-coated cathode [for thermionic valve], (P.), B., 798. Spotwelding of refractory metals, (P.), B., 891. Eitner, H. See Sturm, A.

Ekeley, J. B., and Elliott, J. L., reaction products of aromatic amidines with diketones, dialdehydes, and their monoximes, A., 344. and Lefforge, J. W., action of acetic

anhydride on dibenzylidenehydrazine, A., 740.

and Potratz, H. A., double salts of indium and organic bases, A., 945.

Ekenstam, A. af, behaviour of cellulose in solutions of mineral acids. I. Determination of its mol. wt. in phosphoric acid solution. II. Kinetics of degradation of cellulose in acid solutions, A., 594.

See also Staudinger, H.

Ekhard, W., improving keeping properties of, and removing bad taste and odour from, animal and vegetable materials, (P.), B., 1127.

Ekholm, W. C. See Weiser, H. B. Eklund, K. I. A., products of cement and concrete, (P.), B., 104. Hydrosilicatebound moulded bodies, (P.), B., 837.

Ekstein, H., dependence of plasticity on

temperature, A., 785.
"Elact" Gesellschaft für Elektrische Apparate Ges.m.b.H., reduction of acidity in oils, fats, and fat products, (P.), B., 108.

Elam, (Miss) C. F., recrystallisation accompanying an allotropic change, A., 146. Distortion of β -brass and iron crystals, A., 416. Etching of copper by oxygen, A., 1474.

See also Dobinski, S. El Ayyadi, M. A. S. See Daoud, K. M.Elbe, G. von, nature of sucrose caramel, A.,

Elbel, E., and Bakelite Ges.m.b.H., moulded

articles, (P.), B., 464. Seebach, F., and Bakelite Corp., [phenol-

formaldchyde] resinous condensation products, (P.), B., 1219.

Elbel, H., significance of potassium carbonate for the corrosive action of potassium cyanide, A., 438. Widmark's method of blood-alcohol determination, A., 876.

Elcoro, E., multitubular furnace, (P.), B., 959.

Elden, C. A., and Fellows, M. D., relation of potency of anterior pituitary-like hormone to $p_{\rm H}$, A., 900. See also Boyd, E. M.

Elder, J. H. See Allen, E

Elder, S., and McCall, R. J. S., mineral composition of soils of south Ayrshire, B., 245.

Elderfield, R. C., strophanthin. XXXV.

Nature of "acid C₂₃H₃₀O₈" from strophanthidin, A., 723. Thevetin, A., Î235.

See also Jacobs, W. A. Eldh, A. See Hedvall, J. A.

Eldred, D. N. See Pratt, F. S.
Eldridge, J. A., mean free paths of molecules and wave mechanics, A., 14.

See also Cross, C. L.

Electric Furnace Co., Ltd., and Northrup, E. F., heating and quenching metals and cutting glass, (P.), B., 329. See also **Bowling**, W. S.

Electric Resistance Furnace Co., Ltd., and Millar, W. J., electric furnaces for melting metals, (P.), B., 1051. See also Millar, II'. J.

Electric Smelting & Aluminium washing or laundering, (P.), B., 271. Detergent for use in, and process for, washing, laundering, etc., (P.), B., 285.

See also Scheidt, A. W.

Electric Smelting & Refining Co. See Cowles, E.

Electric Storage Battery Co. See Smith, Edward W.

Electrical Research Products, Inc., electrodes for apparatus for coating articles by sputtering, (P.), B., 940.

and Kemp, A. R., treatment of rubber, (P.), B., 208.

and Russell, A. G., electrolytic deposition of a metal upon a metallised nonconducting surface, (P.), B., 332. Werring, W. W., and Huxham, T. S.,

coating of surfaces [with cellulose lacquers], (P.), B., 337.

Electro Lime & Ice Corporation. See Walker, R. S.

Electro Metallurgical Co., [leaded bronze] alloy compositions [for bearings or welding rods], (P.), B., 937.

Becket, F. M., and Franks, R., seamless-

steel vessels, (P.), B., 25. [Chromium] alloy steels, (P.), B., 1045. and Critchett, J. H., [iron-chromium-copper] alloys and composite articles made therefrom, (P.), B., 553.

and Doom, E. F., removal of tin from niobium alloys, (P.), B., 1162. and Priestley, W. J., composite metal

articles [copper alloy castings], (P.), B., 602.

See also Becket, F. M., Burgess, C. O., Corson, M. G., Crafts, W., George, H. S., Good, R. C., Kinzel, A. B., Kuhlmann, A. M., and MacQuigg, C. E.

Electrolux, Ltd., and Fredholm, H., absorption refrigerating apparatus, (P.), B., 2.

Electrolytic Zinc Co. of Australasia. See Nat. Smelting Co.

Electromagnets, Ltd., and Box, W. E., magnetic separators, (P.), B., 66.

Electron Chemical Co. See Allen, H. I. Electrons, Inc. See Riggs, A. S., and Spanner, H. J.

Elek, A., and Harte, R. A., micro-determination of acetyl groups, A., 1132.

Elek, S. D., demountable centrifuge tubes gravimetric determinations, 698.

Elektrische Glühlampenfabrik, J. Krcmenezky Akt.-Ges., adjustable resistances or potentiometers, (P.), B., 333.

Elektrizitäts-Akt.-Ges. Hydrawerk, electrolytic condensers, (P.), B., 156.

Elektro Thermit Ges.m.b.H., and Ahlert, W., aluminothermic welding of metals, (P.), B., 1050.

Elektrochemische Werke München Akt.-Ges. See Pietzsch, A.

Elenbaas, IV., effect of added inert gas on high-pressure mercury discharge, A., 654. Intensity distribution and total radiation of the super-high-pressure

mercury discharge, A., 1168.

Eley, D. D., and Polanyi, M., catalytic interchange of hydrogen with water

and alcohol, A., 1213.

and Tuck, J. L., micro-thermoconductivity method for determination of para-hydrogen and deuterium, A., Ī219.

See also Calvin, M. Eley, R. C. See Wyman, E. T. Elford, W. J., and Ferry, J. D., ultrafiltration of proteins through graded membranes. II. Hæmocollodion eyanin (Helix), cdestin, and oval-bumin, A., 500.

Grabar, P., and Fischer, Werner, ultrafiltration studies with normal horse

serum, A., 495. Sec also Laidlaw, P. P.

Elg, S., lattice constant of topaz, A., 1186. Elgin, J. C. See Browning, F. M., and Smith, A. A.

Elhart, W. P., and Orth, O. S., effect of ultra-violet irradiation on the anæsthetising power of methyl and ethyl alcohols, A., 107.

El-Helaly, A. F. See Harrison, T. H. Elia, D. See Sarzana, G., and Zummo, C. Elian, J. See Lebedenko, N.

Elias, O. A., mineral water, etc., (P.), B., 1070. Eliashevitsch, M., rotation-vibration wave equation for a polyatomic molecule, A.,

Eliel, K. W., effect of organic accelerators on the temperature coefficient of vulcanisation [of rubber], B., 1057.

Elin " Aktien Gesellschaft für Elektrische Industrie, [control of current through] gas or vapour electric-discharge devices [by electrical means], (P.), B., 66. Metal-vapour electric-discharge vessels, (P.), B., 418.

Elion, E., absorption spectrum of reduced cytochrome from baker's and brewer's yeasts, A., 523.

Eliseev, I. S. See Mitrofanov, S. I. Eliseeva, V. Sco Nametkin, S. S.

Elizarova, S. S., influence of $p_{\rm H}$ and of salinity on eggs of Eugraulis encrasi-cholus, L., A., 1291. Elkenbard, A. T. See Poljakov, M. V.

Elkin, $E.\ M.$ See Steacie, $E.\ W.\ R.$ Elkington, $H.\ D.$ See Bataafsche Petrol-

eum Maats.

Elkins, (Miss) M., and Hunter, L., the azo-group as a chelating group. I. Metallic derivatives of o-hydroxyazocompounds, A., 65.

Ellerd-Styles, W., ovens for baking, roasting, and drying purposes, (P.), B., 911. Ellestad, R. B. See Bowen, N. L.

Ellett, A., hyperfine structure and depolarisation of resonance radiation by a magnetic field, A., 262.

See also Huntoon, R. D. Elley, H. W., protection of rubber and gasoline by antioxidants, B., 608.

Ellingboe, E. See Fuson, R. C. Ellinger, P., Koschara, W., and Seeger, H., octaverine, a new spasmolytic, A., 376. Ellingham, H. J. T., evolution of the

plating bath, B., 152. See also Newell, W. C.

Elliot, A. H., and Nuzum, F. R., bloodcholesterol in arterial hypertension, A., 505.

Elliott, E. B. See Dietz, V. Elliott, H. P., and Elliott Addressing Machine Co., stencil sheet, (P.), B., 96. Elliott, J. L. See Ekeley, J. B. Elliott, M. See Toennies, G.

Elliott, M. L. See Hammett, F. S. Elliott, R. L. See Hodgson, H. H. Elliott Addressing Machine Co. See Elliott, H. P.

Elliott Brothers (London), Ltd., and Pettitt, L. W., apparatus for measuring or indicating density of solid particles, such as smoke, in a gaseous medium, (P.), B., 130.

Ellis, A. I. See Ferkel, K. A. Ellis, C., and Chadeloid Chem. Co., [paint,

varnish, etc.] finish remover, (P.), B., 462. Varnish and lacquer remover, (P.), B., 752.

and Ellis-Foster Co., oxidation of cracked petroleum, (P.), B., 136. Edible syn-thetic ester resins, (P.), B., 653. Composite [modified alkyd resinous] reaction product, (P.), B., 704. [Thermoplastic | resinous complexes and compositions of synthetic origin containing sulphur, (P.), B., 895. Urea and urea derivative plastic, (P.), B., 895. [Ureaaldehyde] resinous substance, (P.), B., 895. [Urea-aldehyde] condensation product, (P.), B., 895.

and Unyte Corp., carbonyl-amide resin,

(P.), B., 1167.

See also Standard Oil Development Co. Ellis, C. B., energy levels in crystals of samarium salts, A., 1448.

and Sawyer, R. A., thallium II spectrum, A., 262. Ellis, C. D., and Henderson, W. J., induced

radioactivity by bombarding magnes-ium with a-particles, A., 6. Energy of disintegration of radio-phosphorus [P30], A., 265.

Ellis, E. E. See Weed, F.

Ellis, E. L. See Huffman, H. M.

Ellis, G. H., and Celanese Corp. of America, coloration of materials containing organic derivatives of cellulose, (P.), B., 99.

See also Brill, P. B., and Brit. Celanese.

Ellis, G. W., autoxidation of fatty acids. II. Oxidoelaidic acid and some cleavage products, A., 706.

Ellis, J. W., and Kaplan, J., polarisation effects in the Hilger El quartz spectro-

graph, A., 1084. and Lyon, W. K., infra-red absorption band in fused quartz, A., 921. See also Kinsey, E. L.

Ellis, L., extraction of lead by means of diphenylthiocarbazone, A., 622.

Ellis, L. M. See Pollard, C. B. Ellis, L. N., and Bessey, O. A., effect of diet on hemoglobin concentration of the

blood, A., 495. Ellis, M. M., and Calvin, D. B., glycogen content of fresh-water mussels during prolonged starvation, A., 1533.

Ellis, N. R. See Nestler, R. B., Riemenschneider, R. W., and Spadola, $J.\ M.$

Ellis, O. W., tempering of high-speed steel, B., 323.

Ellis, S. B., and Kiehl, S. J., purification of water and its $p_{\rm H}$ value, A., 38. Application of the glass electrode to unbuffered systems, A., 41.

Ellis, W. C. Sco Standard Telephones & Cables.

Ellis-Foster Co. See Ellis, C.

Ells, B. R. See Minton, C. R. Ells, V. R. See Duncan, A. B. F.

Ellsworth, H. C., action of posterior pituitary hormone on blood-sugar of the rabbit, A., 251. Antagonism between posterior lobe pituitary hormones and insulin, A., 901. Elman, R. See Weiner, D. O.

Elmer, O. H., growth inhibition in potatoes caused by gas, emanating from apples, B., 806.

Elmore, W. C. See McKeehan, L. W. Elmqvist, O. See Akerlund, E.G.

Elöd, E., dyeing of natural silk, B., 540. Mordanting and dyeing processes. XXV. Dyeing of wool, B., 831.

and Balla, N., mordanting and dyeing processes. XXIV. Dyeing of weighted and unweighted natural silks, B., 143,

and Berezeli, H., gelatin dichromate. I., II., and III., A., 680; B., 465, 561. and Mach, U., oxidation and drying processes in linseed oil products, B., 700.

and Sehachowskoy, T., action of different metal compounds on gelatin, B., 33.

Elovitz, S. See Charachorin, F. Elphick, G. K., and Gunn, J. A., action of aminos related to adrenaline: methoxyphenylmethoxyethylamines, A., 374.

Elpidina, O. K., toxins of wilting [in plants], A., 123.
El Ridi, M. S. See Gillam, A. E.

Elrod, H. E., sewage-purifying device, (P.), B., 1022

Elsasser, W. M., diffraction of slow neutrons by crystalline substances, A., 658.

Elsberg, C. A., Levy, I., and Brewer, E. D.method for testing the sense of smell and for establishment of olfactory values of odorous substances, A., 535.

Elsdon, G. D., and Stubbs, J. R., calculation of added water from f.p. of watered milks, B., 810.

See also Stnbbs, J. R.

Elser, E., mineral matter in milk and its variation in the course of the year, B.,

Elsey, H. M. See Booth, H. S.

Elsom, K. A., Bott, P. A., and Shiels, E. H., excretion of "skiodan," "diodrast," and "hippuran" by the dog, A., 1416. See also Landis, $E.\ M.$

Elsom, K. O. See Riegel, C.

Elssner, G., electric deposits on aluminium, B., 890.

Elssner, R., and North Amer. Rayon Corp., viscose solution[s], (P.), B., 690.

Elstner, G. Seo Schwarz, R.

Elsworth, J. R., photographic method of colour separation for colour printing, (P.), B., 221.

Elton, N. W., Van der Bergh reaction (ring test technique) and hæmoglobin-bilirubin interrelation in icterus neonatorum, A., 505.

Elvegård, E., connexion between illumination and strength of current in the barrier-layer photo-cell, A., 408.

Elvehjem, C. A., and Arnold, A., interrelationship of vitamins, A., 390.

Koehn, C. J., jun., and Oleson, J. J., new essential dietary factor, A., 1568. See also Deobald, H. J., Kline, O. L.,

Koehn, C. J., jun., Kohler, G. O., Potter, V. R., Schultze, M. O., and Sherman, W. C.

Ely, E. C. See Smith, S. B.

Ely, J. O. See Weil, L. Elzas, M. See Verkade, P. E.Emberg, G. See Barrett Co.

Emberson, R. M., and Dufford, R. T., search for a photomagnetic effect, A., 1057.

Emblik, E., viscosity of "ice sol" as dependent on temperature and concentra-

tion, A., 558. Emde, H., and Kull, H., carbon double linkings and nitrogen-carbon linkings. XIII. Degradation of quaternary ammonium compounds by catalytic hydrogenation, A., 483.

Emeléus, H. J., and Jolley, L. J., photochemical decomposition of methylamine and ethylamine, A., 37. Kinctics of thermal decomposition of methylamine, A., 1469.

and Stewart, K., oxidation of silicon hydrides. II., A., 801. Effect of light on ignition of monosilane-oxygen mixtures, A., 1473.

Emeléus, K. G., and Ballantine, R. J., electron velocity distribution in gases, A., 1439.

and Lunt, R. W., chemical reaction in ionised gases, A., 567.

Emerique, L., glycerophosphatase activity of the tissue of animals in avitaminosis-A, A., 111. Avitaminosis-A in presence of variable amounts of vitamin-D, A., 647. Emerson, G. A., and Lilly & Co., E.,

substituted glycerols, (P.), B., 1178. See also Emerson, O. H., and Evans, H. M.

Emerson, O. H., Emerson, G. A., and Evans, H. M., isolation from cottonseed oil of an alcohol resembling a-tocopherol from wheat-germ oil, A., 963.

See also Evans, H. M.

Emery, F. H. [with Booth, H. S.], application of the spectrograph to determination of carbon in steel, B., 105.

Emery, J. W., frit kiln, (P.), B., 933. Emery Industries, Inc. See Heekel, H.

Emley, W. E., effect of acid on leather, B., 163.

See also Bowker, R. C.

Emmanuel, E., Chios turpentine, A., 477. Emmanuel-Zavizziano, (Mme.) H., entrainment of protoactinium by titanium and a method of purification, A., 690.

and Haissinsky, M., electrolysis solutions of titanium salts, A., 1213. Emmanuilova, Z. I. See Okatov, A. P.

Emmens, H., Geel, W. C. van, and Radio Corp. of America, electrodo system [rectifier], (P.), B., 418.

See also Geel, W. C. van, and N. V. Philips' Gloeilampenfabr. Emmerich, H. See Treibs, A.

Emmerie, A., determination and excretion of flavins in normal human urine, A., 1140.

and Eekelen, M. van, determination of ascorbic acid, A., 1159.

See also Eekelen, M. van.

Emmermann, C., action of photographic baths through paper felt, B., 253.

Emmert, B., Gsottschneider, H., and Stanger, H., internal complex salts of bivalent manganese and univalent copper, A., 968.

and Schneider, O., action of phenylhydrazine on metallic acctylacetonates, A., 968.

Emmert, E. M., effect of drought on nutrient levels in the tomato plant, B.,

Emmett, P. H., and Brnnauer, S., application of Polanyi's potential theory to the van der Waals adsorption of gases on iron synthetic ammonia catalysts, A., 283.

Emminger, E., and Büchele, B., experimentally rachitic rats after injection of

porphyrin, A., 884.
Emmons, J. V., and Cleveland Twist Drill
Co., nitrided articles of manufacture [tungsten-steel drills], (P.), B., 329. Ferrous alloys, (P.), B., 601. Alloy steels, (P.), B., 601.

Emo, L. See Bernardini, G.

Empire Oil & Refining Co. See Walker,

Empson, A. W. See Stone & Co., Ltd., J. Emulsol Corporation, esters of polyglycerols, (P.), B., 1081. Cakes, (P.), B., 1176. Enamelers Guild, Inc. See Hommel, O.

Ence, E. See Straumanis, M. Ende, W., characteristics of mercury are

between solid electrodes, A., 1438. Endean, F. L. See Aluminum Co. of

America. Endell, K., Heidtkamp, G., and Hax, L.,

fluidity of calcium silicate, calcium ferrite, and basic open-hearth slags up to 1625°, B., 1155. See also Sitz, G., and Wilm, D.

Ender, F. See Toverud, K. U.

Ender, W., and Uebel, O., determination of lignin by the sulphuric acid method, B., 1084.

See also Schwalbe, C. G.

Enderlin, L., reversible oxidisability of organic compounds; reducible. but not dissociable, monoxide of diphenyldi-p-bromophenylrubene; dihydroxide of diphenylbis-(p-bromophenyl)-rubene; isooxybis(p-bromophenyl)diisooxybis(p - bromophenyl)diphenylnaphthacene, A., 600, 716, 1241. Rubenes; isomerisation of diphenylbis-p-bromophenylrubene into the corresponding pseudo-derivatives, A., 715.

Enders, C., objective colour determination through absorption measurements, B., 565. Colour determination of wort and beer, B., 565. Turbidity in wort and beer. I. Measurement of

turbidity, B., 901. and Fries, G., analogy of melanoidins and

humic acids, B., 1026.

and Löther, A., colouring matters of beer and their importance for beer quality, B., 1121.

and Spiegl, A., photo-electric sedimentation measurement, A., 1480.

See also Schild, E. Enders, J. F. See Hornus, G. J. P.

Endô, H. See Kanazawa, S.

Endo, K., oxidation of iron and steel at elevated temperature, and structure of the scalo, B., 323.

Endo, S., presence of free sugar in green algæ and its relation to photosynthesis. I. Codium latum, Suringar. II. Chido-

phora Wrightiana, Harvey, A., 1164.
Endoh, C., Lange, F. E. M., and Nord,
F. F., eryolysis, diffusion, and particle
size. III. Investigations with gumarabic and polyacrylic acid, A., 157.

Endoh, H., acetone extraction of raw rubber. VII. Period of extraction and saponification value of the extract and residue, B., 161. Analysis of organic accelerators and anti-oxidants. I. Colour reaction of anti-oxidants with concentrated sulphuric acid. II. Colour reaction of anti-oxidants in concentrated nitric acid and in Erdmann's reagent. III. Colour reactions of anti-oxidants in Mandelin's reagent and in concentrated sulphurie acid containing arsenie acid, IV. Colour reactions of anti-oxidants with concentrated sulphuric acid containing ammonium molybdate and hydrogen peroxide. V. Colour reactions of antioxidants to concentrated sulphuric acid containing selenium dioxide and potassium persulphate, B., 181, 359, 440, 655.

Endowment Foundation. See McLean, H. C.

Endres, A. F. See Standard Oil Co.

Endres, G., and Kaufmann, L., microdetermination of iodine and iodides, A., 1351.

Enesco, I., and Isac, C., velocity of intra-hepatic blood circulation, A., 622.

Enfield, G. H., and Conner, S. D., fixation of potash by muck soils, B., 1059.

Engel, G. L., and Gerard, R. W., phosphorus metabolism of invertebrate nerve, A., 237.

Engel, H., does the customary treatment with complete mineral fertilisers influence activity of micro-organisms in soil? B., 115.

Engel, K. H. See Barrett Co.

Engel, L. L., constitution of osazones, A.,

Engel, P., growth-promoting hormone and tumour growth, A., 251. Pineal gland and gonadotropic hormone, A., 252. Antigonadotropic hormone in the pineal gland, blood, and organs, A., 389. Hormonal properties of the pineal gland, A., 762. Anti-hormones and pineal gland, A., 1031. Antigonadotropic action of epiphysan, A., 1303.

Engeland, R., characterisation and determination of hydrolysis products of clastin; isolation of the monoaminoacids by a new technique, A., 352.

Engeldinger, M., [properties of] a colloidal solution prepared from resorcinol-formaldehyde resins, A., 934. Formation, in a dilute medium, of colloidal resins obtained by action of formaldehyde on resorcinol, B., 559.

Engelhard Inc., C. See Hebler, W. O., and

Oetjen, J. H.

Engelhardt, V. A., and Bajov, A., double mechanism of adenosine triphosphate stabilisation in cells. II. Nucleated avian erythrocytes, A., 1284.

and Lipshitz, G. G., degradation of adenosine triphosphate in cells, A.,

1007.

and Liubimova, M., double mechanism of adenosine triphosphate stabilisation in cells. I. Reticulocytes, A., 1284.

Engelhardt, W. von, geochemistry of barium, A., 448.

Engelhardt, W. E., comparative animal investigations on action of toluene and xylene on blood, A., 1023.

Engelhart, E., antagonistic effect of the thyroid hormone on the corpus luteum and of the follicular hormone on the pseudo-pregnant uterus, A., 1031.

Engelke, \hat{E} . \hat{F} . See Doherty Res. Co. Engelkes, H., treatment of hamorrhagic disorders with vitamin-C, A., 231.

Engelmann, E. See Darapsky, A.

Engelmann, M. See Du Pont de Nemours & Co., E. I. Engels, H., and Rügner, O., producing

patterns on dark-coloured skins leathers, (P.), B., 610.

Engels, O., effect of increased amounts of phosphate as superphosphate on yield and sugar content of sugar beet, B., 35. Nature and importance of new humus and carbonaceous manures, B., 210. German nitrogenous fertilisers: composition and action, B., 466. Influence of liming on solubility of phosphates of acid soils, B., 611.

Engels, P., building materials similar to xylolite, (P.), B., 321.Engels, W. See Darapsky, A.

Engelschtein, M. A. See Pavlov, P. N.

Engeström, T., acidity of gastric juice and the diluting secretion of the stomach, A., 502.

Engiseh, O., evaporators with internal rotary heating members, (P.), B., 673.

Engl, J., [optical] dispersion of crystalline and vitreous quartz, A., 554.

and Fölmer, J., temperature variation of conical indentation hardness of metals. II., B., 457.

and Leventer, I., investigation of piezoelectric substances in powder form, A.,

Englaender, G. See Späth, E.

Engle, E. T. See Smith, P. E.

Engle, I. B., mineral fibre, (P.), B., 988. Engler, W., deuterium compounds. II. Raman spectra of deuteracetic acids and hexadeuteracetone, A., 777.

See also Dadieu, A. Englert, O. See Becker, W.

Englert, R., & F. Becker. See under Becker, W.

Englis, D. T. See Harrison, H. E., Lynn, E. G., Page, J. O., and Stegeman, R. A.

English, H., Green, H., Mitchell, and Yorston, F. H., rate of pulping of Douglas fir sawdust, B., 94.

English, H. E. See Phillips, P. H. English, S. Seo Helophane, Ltd.

English Electric Co., Ltd., and Jamieson, C. D., insulation of electric conductors [wire], (P.), B., 460.

Englund, G. See Blix, G. Englund, L. H., Baslaw, B., and Ash, C. N., detergent, (P.), B., 1055.

Engs, W. See Bataafsche Petroleum Maats., and Shell Development Co.

Enikeev, D. R. See Makarov, S. Z. Enlow, C. R. See Gardner, F. D.

Ennis, G. H., and Funk, R. V., solution for use in testing [oil] wells, (P.), B., 260. Electrolyte for use in testing [oil] wells, (P.), B., 260.

Enocksson, B., and Giertz, A., tono-glycamic index of adrenalme, A., 249.

Enomoto, M., vasoconstrictive substance in blood, A., 374.

Enright, L., Cole, V. V., and Hitchcock, F. A., basal metabolism and iodine excretion during pregnancy, A., 506.

Enselme, J., Dargent, M., and Chevassu, D., blood-gases in pneumectomised animals, A., 1282.

Enser, K., transformation of higher fatty acids into carbohydrates during germination of pumpkin seed. II. Determination of carbohydrates, A., 649.

Ensign, M. R., growth and yield of potatoes

in Florida, B., 35. Ensor, A. J. See St. Helens Cable & Rubber Co.

Enterline, H. M. See Burke, S. P. Enver, I., effect of differently de-fatted soya-bean meals on blood picture of domestic animals, A., 508.

Enzenauer, H. See Remy, E.

Epelbaum, S., rôle of phosphorus in carbohydrate and fat absorption processes, A., 1545.

See also Gorodisski, H.

Epifanski, P. F. See Boussov, P. P. Eppler, synthetic emerald, A., 448.

Eppler, E., and Baker Perkins Co., mixing and kneading machine, (P.), B., 673. Epprecht, A. See Erlenmeyer, H., and

Sehwarzenbach, G.

Eppson, H. F. See Beath, O. A. Epstein, A. K., dispersion of hydrophilic material, (P). B., 949.

Epstein, A. K., and Harris, B. R., retarding staling of bread, (P.), B., 811. Flavouring material, (P.), B., 1233.

Harris, B. R., Reynolds, M. C., and Sternberg, W. M., dried egg-whites, (P.), B., 666.

Reynolds, M. C., and Harris, B. R., manufacture of margarine, (P.), B., 666. Epstein, C. H., Gotthoffer, N. R., and Grayslake Gelatine Co., manufacture of gelatin product, (P.), B., 1222.

Epstein, S., and Mima, E., intermediate metabolism of internal secretory glands. IV. Proteolysis and ammonia formation, A., 237.

See also Gorodisski, H.

Epstein, Z. A., superconductivity of the elements. III. Origin and range of validity of a proposed criterion for superconductivity, A., 148.

Erastova, R., wood and perilla oils, B.

Erb, E. S. See Gardner, F. D. Erb, N. M. See Sherman, J. M. Erb, W. H. See Sumwalt, M.

Erbacher, O., structure of metal hydroxides with the emanating power 1.00, A.,

and Philipp, K., separation of radioactive atoms from stable isotopic atoms, A., 773. Preparation of artificially radioactive halogens in unweighable amount from the stable isotopes, A., 773.

Erbe, R. See Schering-Kahlbaum A.-G. Erbring, H., spinning properties of liquid systems, A., 1200. Spinning properties of lyophilic colloid solutions and mechanical properties of the solid threads formed from them. II., B., 1199.

and Sakurada, K., action of alcohols on organosols (especially polystyrene, caoutchouc, and cellulose acetate), A., 28.

See also Lloyd, J. U.

Erbslöh, S., highly swellable inorganie substances [bentonite], (P.), B., 1038.

Erculisse, P., influence of alkalinity of mixing water on setting time of hydraulic cements, B., 1208.

Erdahl, B. F., algin composition containing [rubber] latex, (P.), B., 946. Erdenbrecher, A. H., and Dörfeldt, W.

acid ensilage of pressed beet slices of high sugar content, B., 1232.

Erdey-Gruz, T., and Szarvas, P., potential of mercury electrodes in solutions of salts of other metals, A., 1342.

and Vázsonyi-Zilahy, A., electrode potentials of dilute amalgams, A., 1342.

Erdheim, E., action of bleaching earths [on benzine], B., 6. Decolorising power of decolorising agents, in particular fuller's earths, B., 484. Silicic acid as decolorising agent [for petroleum], B., 626. Bleaching qualities of bleaching carths,

Erdmannsdörffer, O. H., Wollastoniteurtite, and manner of formation of alkali

rocks, A., 959.

Erdős, J., and Pellak, L., micro-extraction apparatus for determining alcohol-ethersoluble lipins, A., 913.

Erdtman, H. See Euler, H. von. Eremeeva, N. A. See Postnikov, V. F. Eremin, E. N., free energy of dissociation

of hydrogen, A., 1070. and Kobosev, N. I., inversion of the

ammonia equilibrium, A., 1069.

Ergon Research Laboratories, Inc. Sec Lilienfeld, J. E.

Erhardt, A. See Kollath, W. Erichsen, C., combustion in the Diesel

ongine, B., 818.

Ericks, W. P. See Cartledge, G. H.

Erickson, B. N. See Hunscher, H. A.

Erickson, C. R., East Lansing (Michigan) [water-]softening and iron-removal plant,

B., 351. Ericson, G. R., and Carter Carburetor Corp.,

filtering material, (P.), B., 528. Eriksen, F. See Larsen, V., and Veibel, S.

Eriksson-Quensel, I. B., and Svedberg, T., sedimentation and electrophoresis of the tobacco-mosaic virus protein, A., 1562.

See also Svedberg, T.

Erimescu, P., results with new flotation medium, B., 549.
Erjemin, E. N. See Vassiliev, S. S.

Erk, S., effect of thermal pretreatment on physical properties and structure of glass, B., 543. Heat transference in the chemical industry, B., 767.

and Eck, H., effect of temperature on viscosity of lubricating oils, B., 308. and Keller, A., thermal conductivity of water-glycerol mixtures, A., 789.
Erkkila, A. V. See Schmid, G.
Erlanger, R. J. See Moore, C. V.
Erlenmeyer, H., and Epprecht, A., dissoci-

ation relations of the water HOD. I., A., 1069. Properties of pentadeutero-benzoic acid, C₆D₅·CO₂H, A., 1339. Pentadeuterobenzoic acid, A., 1376.

Epprecht, A., and Lobeck, H., reactions of hexadeuterobenzene, A., 714. Determination of the number of replaceable hydrogen atoms in strychnine, vomicine, and phloroglucinol, A., 873. Preparation of pentadeuterobenzoic acid, A., 983.

Epprecht, A., Lobeck, H., and Gärtner, Hans, hexadouterobenzene and a trideuterobenzoic acid, A., 604. Determination of active hydrogen atoms in organic compounds by H-D isotope

analysis, A., 614.

and Gärtner, Hans, analysis of organic compounds containing H and D, A., 353. Asymmetric carbon atom CHDR'R". I. Constitution of a deutero-β-phenylpropionic acid from cinnamie acid and deuterium. II. Attempted resolution of a deutero-\betaphenylpropionic acid, A., 467, 604.

and Lobeck, H., the hydrocarbon CaD, A., 61.

and Schenkel, H., asymmetric carbon atom CHDR'R". III. Phenylpentadeuterophenylacetic acid, A., 1376.

and Schoenauer, W., thermal decomposition of diacyl peroxides, A., 604. See also Berger, Erwin, and Schwarzenbach, G.

Ermert, H., rocks from Cape Verde Islands, A., 448.

Ermilina, A. F. See Schujkin, N. I.

Ermolaev, N. V., flotation of copper-containing tailings from magnetic separation of ore from the Granev mine in Vuisogorsk, B., 197.

See also Mitrofanov, S. I.

Ernould, J., and Soo. des Hauts-Fourneaux de La Chiers, refractory bricks, slabs, etc., (P.), B., 193.

Ernst, A. H. See Du Pont de Nemours & Co., E. I.

Ernst, G. L. See Mason, C. M.

Ernst, J., and Truka, T. J., determination of lactic acid in blood, A., 223.

Ernst, R. C., Watkins, C. H., and Ruwe, H. H., physical properties of the system

ethyl alcohol-glycerol-water, A., 789.

Ernst, T., mellite-basalt from Westberg
[Hesse-Nassau], an assimilation product of ultrabasic rocks, A., 1227. Olivine lumps of basalt as fragments of older olivine rocks, A., 1227.

Ernst, Z. See Krause, A.

Errera, J., Mollet, P., and Sherrill, (Mlle.) M. L., tetramethylethylene and the influence of the double linking, A., 1048. Infra-red absorption of liquid hydrocarbons; influence of the double linking, A., 1049. Overbeek, $J.\ T.\ G.$, and Sack, H., dis-

persion of the Kerr effect of certain colloidal solutions; time of relaxation of the electrokinetic potential, A., 286.

See also Cartwright, C. H., and Claeys, J. Erskine, A. M., and Krebs Pigment & Color Corp., organic colouring materials comprising azo-compounds and a naphthenate, (P.), B., 1007.

Siegel, A., and Krebs Pigment & Color Corp., organic colouring materials comprising azo-compounds and a petroleum sulphonate, (P.), B., 1007. Organic colouring materials comprising azocompounds and a hydrogenated rosin,

(P.), B., 1007. Erter, J. H., and Alco Products, fractionat-

ing tower, (P.), B., 528.

Erwin, G. H., mineral earth colours, B., 650. Esaulov, N. P., practical potentials of water decomposition, B., 202.

Escardo, F. See Costa, N. P.

Esch, J. F. See Texas Co. Esch, P. See under Esch-Werke K.G.

Maschinenfabrik & Eisengiesserei. Esch, W., incorporation of filters in rubber mixings, B., 802.

Esch-Werke K.G. Maschinenfabrik & Eisengiesserei, drying of [comminuted] materials, (P.), B., 479.

Eschenbach, J., Petersen, W., and Pöpperle, J., relationship between contact angle and flotation, B., 549.

Eschenbrenner, H., determination of peptic activity, A., 520, 1420. Assay of pepsin and its preparations, B., 906.

Escher Wyss Maschinenfabriken Akt.-Ges. Sec Guyer, A.

Escudero, A., and Bosq, P., experimental calcification in avitaminosis-A., A., 903. Eserova, E. A. See Achumov, E. I., and Saslavski, A.J.

Eskew, R. K., and Dnpont Viscoloid Co., treatment of cellulose nitrate, (P.), B., 313.

Espach, R. H., manufacture of paraffin wax from petroleum, B., 403.

Espig, H., synthetic emerald, A., 959. See also Jaeger, M.

Espil, L., inorganic ions contained in Bordeaux wines, B., 662. Constituents of wine; glycerol and lactic acid, B., 901.

and Mandillon, G., action of bromoacetates on some alkaloids, A., 1395.

Espiner, A. C. See Mcllroy, R. J. Espy, L. See Chevallier, A.

Esselen, G. J., and Specialty Guild, Inc., colouring of synthetic resin articles, (P.), B., 1168.

and Talbot, W. F., increasing flow-speed in filtering [milk] by chemically treating the cotton, B., 249. See also Parkhurst, F. A.

Esselmann, viscose staple fibre, B., 784. Essential Oil Sub-Committee, determin-

ation of ascaridole, B., 476.

Esser, H., Cornelius, H., and Banck, W., heat effects in tensile tests on steels, B., 839.

See also Cornelius, H.

Esser, W. See Gessner, O. Essex, H. E. See Steggerda, F. R.

Essex, W. G., reclaiming of vulcanised

rubber, (P.), B., 1113.

Essig, S. F., and Radio Corp. of America, oxidation of an electrode structure, (P.), B., 1002.

Essin, O., Beklemischeva, T., and Matanzev, A., simultaneous discharge of cadmium and hydrogen ions from solutions of simple salts of cadmium, A., 430, 436.

and Levin, A., cathodic polarisation in deposition of copper from solutions

of its simple salts, A., 162.

and Matanzev, A., electrode polarisation in separation of metal from solutions of complex cyanides, A., 32. Simultaneous discharge of copper and hydrogen in solutions of complex cyanic salts, A., 1343.

Esslen, E., powder-mixing device, (P.), B., 673.

Estienne, V., and Gérard, F., starch determination with amylase, B., 342.

Estradère, (Mlle.) S., thermal study of oxidation of hydrocarbons, A., 432. Fuels for aeroplane engines, B., 819.

Esty, J. R. See Cameron, E. J.

Esveld, L. W. van, preparation of cobratoxin for clinical purposes, particularly for alleviation of cancer pain, A., 498. Vitamin-D content of cod-liver oil, B., 1054.

Établissements Expert-Bezançon, metallic and metal oxide powders, (P.), B.,

Établ. Jacob-Delafon Compagnio Céramique de Pouilly-sur-Saône & Belvoye, apparatus for mixing two fluids, (P.), B.,

Etabl. Luchaire, and Bertin, C. F. J. M.,

gas masks, (P.), B., 622. Établ. A. Olier, facilitating action of a gas or vapour on a liquid or mixture of liquids, (P.), B., 1024.

Établ. R. Schneider. Sec Poelman, A.

Établ. Weeks Société Anonyme, pigmented base material, (P.), B., 1109.

Etheridge, W. See Key, A. Ethridge, C. B., Myers, D. W., and Fulton, M. N., effect of inorganic salts on diuretic action of salyrgan, A., 889.

Etienne, H., benzidine phosphomolybdate and its use for colorimetric determination of phosphoric acid, A., 1351.

Étienne-Martin, P., toxicity of organ lipins; poisoning by polypeptides, A., 635.

Etten, C. van. See Du Vigneaud, V. Ettinger, E., and Popper, L., action of

octinum in increasing blood pressure, A., 1292.

Ettinger, J. L. See Saslavski, A. J.

Ettisch, G., and Havemann, R., ideal and real protein solutions, A., 28.

Ettori, J., colour reaction of titanium with ascorbic acid and other molecules containing the group •C(OH):C(OH), A., 580.

See also Maillard, L. C.

Etzelmiller, E. See Du Pont de Nemours & Co., E. I.

Etzkorn, R., and North Amer. Rayon Corp., artificial filaments, (P.), B., 95.

Eucken, A., vapour pressures of metals, A., 418.

and Bertram, A., determination of molecular heat of gases at low temperatures by thermalconductivity method, A., 557.

and Bratzler, K., electrolytic separation of lithium isotopes, A., 36. Electrolytic separation factor of hydrogen isotopes under various experimental conditions, A., 36.

and Förster, F., mean free electronic path in silver from electrical conductivity of very thin silver threads, A., 416.

and Jaacks, H., collision excitation of intramolecular vibrations in gases and gas mixtures studied by sound dispersion measurements, III. Measurements with nitrous oxide, A., 19.

and Knick, H., automatically-controlled method for the micro-analytical separation of low-boiling hydrocarbons by desorption, B., 774.

and Patat, F., effect of temperature on photochemical formation of ozone, A., 1473.

and Schäfer, K., m.-p. curve of mixtures of heavy water and water, A., 158. Enrichment of heavy water in glacier ico and melting diagram of system H₂O-D₂O, A., 1226.

and Warrentrup, H., apparatus for measurement of thermal conductivity of metal foil, A., 445.

See also Bartholomé, E.

Eufinger, H., and Gottlieb, J. B., influencing of thyroxine-catechin balance of different types of blood by a growth-promoting principle, A., 387.

Eulenstein, F., Krus, A., and "Sachtleben" A.-G. für Bergbau & Chem. Ind., treatment of zinciferous iron ores, (P.), B., 998.

Euler, E. See Ohle, H.

Euler, H. (Düsseldorf). See Heisenberg,

Euler, H. von (Stockholm), activation and inhibition of apodehydrogenases, A., 1023.

and Adler, E., components of dehydrogenase systems. IX. Cozymase and codehydrogenase II," A., 519.

Adler, E., and Hellström, H., cozymase as a hydrogen carrier, A., 246. Components of dehydrogenase systems. XII. Mechanism of dehydrogenation of alcohol and of triose phosphates; mechanism of oxidation-reduction, A., 1150.

Adler, E., and Kyrning, S., components of dehydrogenase systems. Non-identity of alcohol- and triosephosphorie acid-apodehydrogenases, A., 1418.

Albers, H., and Sehlenk, F., cozymase, A., 245, 1025. Chemistry of highly

purified cozymase, A., 894. and Brandt, K. M., phosphates and phosphate metabolism in red blood cells, A., 1007.

Brandt, K. M., and Neumüller, G., fluorescence of derivatives of pyrimidine purine and pyrimidazine, A., 85. and Burström, D., determination of ascorbic acid in urine by titration, A.,

and Dahl, Olle, formation of flavin enzyme systems in germinating seeds, A., 380.

Euler, H. von (Stockholm), Erdtman, H., and Hellström, H., gramine, A., 741.

Gartz, C., and Malmberg, M., origin of vitamin-C in the organs of rats fed on vitamin-C-free diets, A., 255.

and Günther, G., stability of the heatstable glycolysis activator in cozymase, and of Warburg's co-enzyme, A., 246. Activators of glycolysis. II. and III., A., 246, 637. Carbohydrate resynthesis in the liver, A., 1547.

Günther, G., and Vestin, R., glycolysis and phosphate metabolism in cellfree oxtracts of mammalian brain, A., 1025.

Karrer, P., and Becker, B., characterisation of sugarphosphoric acids and constitution of the pentosephosphoric acid from cozymase, A., 1364.

Karrer, P., and Malmberg, M., growth-promoting activity of l- and d-araboflavin [6:7-dimethyl-9-l-(or d-)l'-arabitylisoalloxazine], A., 253.

and Malmberg, M., ascorbic acid in lens of the eye, A., 530. Activators of carbohydrate fission as water-soluble constituents of food, A., 755. Bloodcell count and ascorbic acid content in guinea-pigs, A., 1567.

and Schlenk, F., composition of cozymase, A., 1151.

and Vestin, R., action of cozymase, A.,

Vestin, R., and Heiwinkel, H., re-phosphorylation in presence of cozymase, A., 1419.

See also Adler, E., and Malmberg, M. Euler, U. S. von, substance P, the atropineresistant, intestine-stimulating, and vasodilating substance from intestine and brain, A., 880. Specific depressor substance of secretions of the human prostate and seminal vesicles, A., 1293.

Eureka Machinery Co. (Ltd.) Trust Estate.

See Linn, R.

Eustatiu, C. See Angeleseu, E. Eustis, F. A. Seo Cain, J. R. Evangélidis, K. Sco Zenghélis, C.

Evans, A. C., and Martin, Hubert, incorporation of direct with protective insecticides and fungicides. I. Laboratory evaluation of water-soluble wetting agents as constituents of combined washes, B., 342.

Evans, A. G. See Burkhardt, G. N. Evans, B. See Sidery, A. J. Evans, C. A. See Lucas, M. S. Evans, C. L. See Rhead, T. F. E.

Evans, D. J., injector means for dosing water with hypochlorite solution, (P.), B.,

Evans, D. P., influence of alkyl groups on reaction velocities in solution. I. Acidcatalysed prototropy of phenyl alkyl ketones, A., 941.

Evans, E.A., jun., absence of allocholesterol from the organism, A., 1404.

and Schoenheimer, R., epiallocholesterol, a new isomeride of cholesterol, A., 330. β-Cholesterol, A., 1247.

See also Jensen, H., and Schoenheimer, R.

Evans, E. B., Dodds, E. M., and Garner, Frederick H., octane scale [for fuels], В., 133.

Evans, E. J. Seo John, W. G., and Stephens, G. O.

Evans, F. R. See Frazier, W. C., and Ramsdell, G. A.

Evans, G., adrenal cortex and endogenous carbohydrate formation, A., 1425.

Evans, H. See Sykes, C.

Evans, Harry, root exudation and root types in sugar cane, A., 121. Evans, H. J., determination of the original

f.p. of sour milk, B., 1229.

Evans, H. L. See Nat. Smelting Co. Evans, H. M., Emerson, O. H., and Emer-

son, G. A., isolation from wheat-germ oil of an alcohol, a-tocopherol, having the properties of vitamin-E, A., 531.

Pencharz, R. I., and Simpson, M. E., conditions for continuous growth of hypophysectomised animals, A., 526. See also Emerson, O.H., and Lepkovsky, S.

Evans, J., sizing, desizing, and degumming [of textiles] with enzymes, B., 189.

Evans, J.G. See Imperial Chem. Industries. Evans, J.W. See Fetzer, W.R.

Evans, M., growth hormone of the anterior pituitary, A., 643.

See also Langley, W.D.

Evans, M. G., attack of aluminium by chlorine. I., A., 1211.

and Polanyi, M., equilibrium constants and velocity constants, A., 684. Thermodynamics of chemical equilibria and reaction rates, A., 1204.

Evans, M. S. See Vedder, E. H.Evans, N. L., Goacher, W., and Hurst, J. E., cast iron for manufacture of glassbottle moulds, B., 496.

Evans, P., rotary drilling fluids [for oils], B., 532.

Evans, R. C., cell dimensions and spacegroup of calcium tartrate, A., 413.

Evans, R. D., Finney, G. D., Kip, A. F., and Mugele, R., detection of minute quantities of thorium in common materials, A., 1354.

and Livingston, S. M., correlation of nuclear disintegration processes, A.,

and Mugele, R., γ -ray sonsitivity of tube counters and the measurement of the thorium content of rocks, A., 1355. See also Livingston, M. S.

Evans, R. E. See Woodman, H. E.

Evans, R. H., elasticity and plasticity of rocks and artificial stone, A., 450.

and Wood, R. H., modulus of elasticity of materials for small stresses, B., 303. Evans, R. N., and Davenport, J. E., deter-

mination of acidity in insulating oil; use of the glass electrode in n-butanol, B., 867.

Evans, T. See Bataafsche Petroleum Maats.

Evans, T. W., Hill method for solubility determinations, A., 956.

and Edlund, K. R., tertiary alkyl ethers, A., 1486.

Evans, U. R., electric currents flowing over rusting iron, A., 36. [Corrosion] inhibitors—safe and dangerous, B., 150. Water-line corrosion, B., 501, 841. Drop test [for corrosion], B., 744.

See also Lewis, K. G., and Miley, H. A.Evans, W. J., and Smiles, S., rearrangement of carbamyl-sulphones and -sul-

phides, A., 716. Evans, W. L. See Arnold, H. W., Busch, K. G. A., and Kreider, L. C.

Evans, W. T. See Ley's Malleable Castings Co.

Evans, W. V., and Field, Edmund, electrolysis of magnesium methyl halides in ether solutions, A., 830. See also Rowley, H. H.

Eyeleth, D. F., and Eveleth, M. W., blood chemistry of swine. II. Blood changes following ingestion of glucose, A., 93.

and Myers, V. V., aluminium. I. Colorimetric determination of aluminium in biological material. II. Storage of intravenously injected aluminium in the dog, A., 632, 652.
Eveleth, M. W. See Eveleth, D. F.
Evelyn, K. A., stabilised photo-electric

colorimeter with light filters, A., 1223.

Evenson, R. F. Sec Crowell, W. R. Everest, A. E. See Leitch & Co., Ltd.,

J. W.Everett, H. A., and Stewart, F. C., performance tests of lubricating oils in automebile engines, B., 819.

Everett, M.R. See Sheppard, F.

Everett, Edgcumbe & Co., Ltd. See Holophane, Ltd. Evers, F., determination of fluorescence

of mineral oils. II., B., 727.

Evers, G., and Dairaine, B., an insulating and incombustible product, (P.), B., 195.

Evers, N., Jones, A. G., and Smith, W., characteristics of halibut-liver oils of the 1935 season, B., 242.

Eversole, J. F. See Carbide & Carbon Chemicals Corp.

Eversole, W. G., and Doughty, E. W., diffusion coefficient and apparent radius of the cupric ion in silica gels, A., 288.

Everts, T., density of sprayed metal coatings, B., 1044.

Evrard, V., cade oil, B., 859.

Evteeva, M. F. See Sobolev, M. M.

Ewald, G., preparation of American carbon

black, B., 354.
Ewald, L. See Freudenberg, K.
Ewald, P. P., historical and systematic survey of the use of the "reciprocal lattice" in the study of crystal structure, A., 1449.

and Hönl, H., X-ray interference in diamond as a wave-mechanical problem. I. and II., A., 412, 1185.

Ewell, R. H., Bunting, E. N., and Geller, R. F., thermal decomposition of tale, A., 307.

Ewers, N., principles of design of highgrade bituminous road surfacings, B., 372.

Ewert, M., theory of concentrated solutions. XIII. Aqueous solutions of organic compounds, A., 1338. Specific heats of metals at high temperatures. XXV. Specific heats and the allotropy of nickel between 0° and 1000°, A., 1453.

Ewertz, E. See Bowman, R. O. Ewing, K. P., and McGarr, R. L., control of the cotton leaf-hopper with several

insecticides, B., 1118.

Ewing, M., Crary, A. P., and Thorne, A. M., jun., propagation of elastic waves in ice. I., A., 19.

See also Crary, A. P. Ewing, M. E. See Blatherwick, N. R. Ewing, S., cathodic protection of pipelines from soil corrosion. II., B., 201.

Exolon Co. See Hauman, E. L., and Ramsey, D. M.

Expanded Metal Co., Ltd., and Salmon, H. P., [plates for] electric accumulators, (P.), B., 333.

Extraktion Akt.-Ges. See Jungmann, K. Eyer, J. R., pathological histology and phytochemistry of psyllid yellows, A., 257.

Eymann, C. See Koppers Co. of Delaware.

Eymers, J. G., and Schouwenburg, K. L. van, spectrum of light emitted by Photobacterium phosphoreum and by some chemiluminescent reactions, A.,

See also Schouwenburg, K. L. van.

Eyring, H., viscosity, plasticity, and diffusion as examples of absolute reaction rates, A., 684.

Gershinowitz, H., and Sun, C. E., absolute rate of homogeneous atomic reactions, A., 162.

Hirschfelder, J., and Taylor, H. S., chemical reactions produced by ionisation processes. I. Ortho-para hydrogen conversion by a-particles, A., 1349. Radiochemical synthesis and decomposition of hydrogen bromide, A., 1349.

and Wynne-Jones, W. F. K., absolute rate of reactions in condensed phases, A., 684.

See also Hirschfelder, J., and Wheeler, A. Eyring, N. See Stearn, A. E.

Eystratov, V. F., properties of rubber from

chloroprene, B., 848. Ezell, B. D. Seo Gerhardt, F.

Ezerova, E. A. See Achumov, E. I.

Fabbri, A., soft grains in hard wheat (Damiano-Chiesa) and its dependence on manuring, B., 806. Nitrogenous manurial trials with cereals, in relation to agronomic, physiological, and technical properties, B., 806. Influence of manuring with nitrogen and phosphate at various stages of development of cereals on milling quality of the grain and baking quality of the flour, B., 806.

Fabel, K., rapid determination of viscosity of cellulose in cuprammonium solution, B., 185. Investigation of cellulose raw materials by conversion into viscose and cellulose hydrate foil, B., 538.

Faber, H. K., and Roberts, D. B., infantile allergic eczema. II. Serum-lipins; saturation of fatty acids, A., 231.

Faber, L. De R., Carroll, C. J., and Faber Eng. Co., treatment of textile and other materials, (P.), B., 1205.

Faber, P. See Flaschenträger, B. Faber, W., minerals of lead slags, A., 50. Faber Engineering Co. See Faber, L. De R. Fabian, A. A. See Sachs, A.

Fabian, F. W., and Severens, J. W., mouldiness in Romano cheese, B., 665.

and Wickerham, L. J., cucumber fermentation. VIII. Genuine dill pickles: biochemistry and bacteriology of the curing process, B., 758.

Fabian, R., metamorphosed Devonian phyllites in the Altvatergebirge, A., 816.

Fabre, F. See Cayla, J.

Fabre, R., technique of toxicology, A., 259. Endocrino localisation of medicinal and toxic substances, A., 1552.

and Kahane, E., impregnation of the organism by dust. IV. Laboratory animals, A., 627.
Fabrikant, V. A., disappearance of spectral

lines in strong electric fields, A., 1438. Butaeva, F., and Cirg, J., influence of pressure on discharge radiation in

mercury vapour, A., 398. and Kanel, A. S., influence of pressure on discharge radiation of cadmium vapour, A., 2.

Fabritziev, B., Buiko, G., and Pachomova, E., self-vulcanising cements, B., 32.

Fachmann, W. See Rojahn, C. A.

Factor, F., and Factor & Co., M., grease paint, (P.), B., 1217.

Factor & Co., M. See Factor, F.

Faed, P. E. See Rice, C. E.

Faerber, E., Koch, H., Urban, H., and Holzbydrolyse Akt.-Ges., purification of carbohydrate solutions obtained in an carbohydrate solutions obtained in saccharification of cellulose-containing materials, (P.), B., 1227.

Faerman, G. P., and Shishkina, N. N., alkali in developers, B., 909.

Faessler, A. See Pahl, M.

Fahir, E., kinetics of donse fluids in two or three dimensions, A., 411.

Fahlenbrach, H., ionic diamagnetism in the solid state and in solution, A., 18.

Fahlstrom, C., sulphate-pulp quality control: sampling and testing of individual

digester cooks, B., 56.

Fahrenwald, F. A., machinable stainless [steel] casting, (P.), B., 376.

Fahs, J. L. See Du Pont de Nemours & Co., $E.\ I.$

Failla, G., ionisation in air and biological effects of y-rays, A., 105.

Fain, J. M., chemical developments in finishing industries, B., 205.

and Snell, F. D., asphalt emulsion paints, B., 1005.

See also Hixson, A. W.

Fainberg, B., determination of free sulphur [in rubber] by titration, B., 381.

and Trankovskaja, N., determination of volatile components in sodium-butadiene rubber, B., 32.

Fair, G. M., and Moore, E. W., sewage sludge fuel value related to volatile matter, B., 526.

Fairbairn, H. W., petrofabric analysis of gypsum, A., 959.

Fairbanks, B. W., and Mitchell, H. H., nutritive value of skim milk powders, with reference to sensitivity of milkproteins to heat, B., 520.

 Fairbourne, A. Sec Lever Bros.
 Fairbrother, E. M., house primers for southern [United States] climates, especially for yellow pine, B., 509.

Fairbrother, F., electrolytic dissociation processes. I. Dipole moment of iodine monochloride in solution, A., 935.

and Tuck, J. L., photo-electric measurement of the absorption of sodium resonance radiation, A., 537.

Fairbrother, J. A. V. See Brit. Thomson-Houston Co.

Fairleede Engineering., Ltd., and Fry, H. D., filters, (P.), B., 176.
Fairley, N. H., tropical sprue with special

reference to intestinal absorption. I., A., 1408.

and Bromfield, R.J., malaria and blackwater fever. I. Malaria. II. Blackwater fever; hæmoglobinæmia. III. New blood pigment in blackwater fever and other biochemical observations, A., 365.

Fairlie, M., laboratory measurement of resistance of oil to sludge formation, B., 227. Fairman, E. See Hahn, P. F.

Fairmount Glass Works, Inc. See Ferguson, John.

Fairrie, J. L., treatment of beet pulp, (P.), B., 1127.

Faith, W. L., and Sartorius, C. H., beet juice evaporation; effect of sodium

aluminate, B., 900.

Fajans, E., and Goodeve, C. F., absorption spectrum of sulphur trioxide, A., 405.

Falaschini, A., changes in composition of blood in rabbits by irradiated food, A.,

Falco, F., percaine, A., 240.

Falconbridge Nikkelverk A./S., production of nickel, capable of being rolled and annealed, directly by electrolysis, (P.), B., 604.

Falconer, R., and Collignon, E., generating mixed gas from solid and liquid fuels, (P.), B., 53. Gas-producing apparatus, (P.), B., 776.

Falconer, S. A. See Christman, L. J.

Falek, O. See I. G. Farbenind. Fales, H. A. See Yagoda, H.

Fales, J. H., and Bowker Chem. Co., plantprotective agent [insecticide], (P.), B., 294.

Falk, A., chewing gum, (P.), B., 714.

Falk, R. See Beaune, A.

Falla, F., apparatus for burning calcareous materials, (P.), B., 546.

Fallot, M., ferromagnetism of iron alloys, A., 1328.

Faltis, F., Kadiera, K., and Doblhammer, F., constitution of chondodendrine, A., 1003.

V., influence of bromine on Famiani, growth and metamorphosis of the larvæ of Bufo vulgaris, A., 105. Content of vitamin- B_1 in germinating wheat, and Italian wheats, A., 253. Nutrient value of cereal seedlings, B., 393.

See also Zagami, V.

Fancutt, F., and Herbert, T. M., cleaning, polishing, and reviving compositions especially suitable for coachwork coated with cellulose preparations, (P.), B., 653. Composition for stripping of coated surfaces, (P.), B., 653.

Fang, S. S. See Chou, S. K.
Fang, W. Y. See Kung, L. C.

Fangauf, R., crude fibre and protein in rations of laying hens, B., 427

Fano, U., absorption spectrum of rare gases at the limit of the argon spectrum, A., 915. Anomalous diffraction gratings, A., 1355.

Fansteel Products Co., Inc. See Austin, $M.\ M.$

Sec Barrenscheen, H. K. Fanta, H.

Fanta, K. See Brass, K.

Fantl, P., and Weinmann, J., proteolytic power of saliva. I. Proteolysis in saliva. II. Action of human saliva on proteins, A., 98.

Fantz, F. C. See Ard, C. E., and Stockham, H. C.

Farago, F., precipitation of diphtheria anatoxin by alum, A., 1532.

Farastan Co. See Ebert, J.

Farber, L. See Brown, A. W. A. Farberov, M. I., and Margolina, J. L., thermal plasticising of rubber. I., B., 289.

and Susliakov, A. V., thermal plasticising of rubber. II. Technical characteristics of "softened" rubber, B., 338.

Farcy, colorimetric determination of nitrates in water, B., 1182.

Farden, C. A. See Magistad, O. C. Fargo, J. M. See Hayward, J. W. Farinacci, N. T. See Jacobs, M. B., and Mikeska, V.J.

Farineau, J., K spectra and conductivity electrons of solid and liquid aluminium, A., 1311.

Farinholt, L. H. See Twiss, D.

Faris, B. F., and Small, L., ethers and hetero-ethers of morphine and its iso-

merides, A., 1394. Farkas, A., thermal interaction of deuterium and ammonia, A., 293. Catalytic

interaction of ammonia with deuterium, A., 435. Analysis of heavy water, A., 441. Catalytic exchange reaction between deuterium and water, A., 805.

and Farkas, L., deuterium. V. Elementary reactions of light and heavy hydrogen; thermal conversion of ortho-deuterium and interaction of hydrogen and deuterium. VI. Ratio of magnetic moment of the proton to magnetic moment of the deuteron, A., 32.

Farkas, L., and Harteck, P., variation of vapour pressure of the isotopic mixture of hydrogen with time at 20.38° abs., A., 931.

Farkas, L., and Rideal, E. K., use of the micro-thermal conductivity method for determination of deuterium, A., 441.

Farkas, E. See Berend, M.

Farkas, L., and Wigner, E., rate of elementary reactions of hydrogen and deuterium, A., 567.

See also Farkas, A.

Farley, A. J., spraying fruit in New Jersey, B., 387.

Farley, E. D., and Marvel, C. S., rearrangements of polyinenes. VIII. Formation of diallenes, A., 325.

Farley, F. S., and Brown, R. B., refining of pulps and fibrous or porous materials, (P.), B., 577.

Farlow, M. W., and Adkins, H., hydrogenation of carbon dioxide; reported synthesis of urethanes, A., 194.

Farmer, C. J., and Abt, A. F., ascorbic acid content of blood, A., 906. Determination of reduced ascorbic acid in small amounts of blood, A., 1530.

Sec also Freeman, S. Farmer, E. H., and Paice, E. S., unsaturated acids of natural oils. IV. Highly unsaturated acid of Telfairia occidentalis, A., 53.

See also Brown, W. Bernard.

Farmer, H. Sce Guyer, A.

Farmer, S. N. Sco Askew, F. A.

Farncomb, F. J., and Corning Glass Works, blue-coated ceramic article, (P.), B.,

Farnell, R. G. W., activated carbon, (P.), B., 309.

Farnsworth, H. E., effects accompanying diffraction of low-speed electrons, A., 670. Penetration of low-speed diffracted electrons, A., 670.

Farnsworth, W. H., and Marine Chemical Co., purification of magnesium products, (P.), B., 1038.

Montgomery, M., and Marine Chemicals Co., magnesium products, (P.), B., 1038.

Farooq, M. O. See Desai, R. D.

Farquharson, J., magnetism and polymerisation, A., 277.

Goodeve, C. F., and Richardson, F. D., magnetic susceptibility of chlorine hexoxide, A., 786. Farr, H. O., jun. See Crockford, H. D.

Farr, W. K., and Eckerson, S. H., what is

cotton? B., 184. Farrán, M. See Pi Suñer, A.

Farrar, G. E., jun., and Goldhamer, S. M., iron requirements of normal adults, A., 513.

Farrell, F. J., [rubberised] surgical dressings, bandages, electrical insulating bindings, and other wrappings, (P.), B., 860.

Farrell, L. N., influence of inositol and bios IIA and IIB on reproduction of twelve yeasts; new constituent of bios, A., 522.

Farrell, M. A., comparative study of nine presumptive-test media [for B. coli in water], B., 670.
Farrer, W. J. G., detection of a latent

image in thallous bromide, A., 437. Thallium bromide emulsion, B., 1020.

Farrington, B. B., and Davis, W. N., structure of lubricating greases, B.,

See also Standard Oil Co. of California.

Farrow, F. D. See Richardson, W. A. Farwell, H. W., Christiansen filters as polarisers, A., 1354.

Faserstoff-Analysenkommandit des Vereins der Zellstoff- & Papier-Chemiker & -Ingenieure, standard methods of determining swelling criteria [of pulps], B., 230. Standard method for determining xanthate viscosity, B., 312. Standard method for determining euprammonium viscosity, B., 538.

Fash, R. H., treatment of a shaving preparation, (P.), B., 942.

Fashena, G. J., and Trevorrow, V., determination of iodine in biological material, A., 914.

Fasig, M. See Gardner, W. H.

Fassbinder, J., and Sonlary, P., metal coating with the pistol, B., 794.

Fasshauer, W. See Thaddea, S. Fast, J. D. Sco De Boer, J. H.

Fasting, J. S., manufacture of coment in rotary-kiln plants, (P.), B., 373. Rotary-kiln plants, (P.), B., 721. Apparatus for scrubbing dust from gases, (P.), B., 912.

Fath, F., media for cleaning and polishing glassware, etc., (P.), B., 595.

Fatome, M., determination of glycerol in galenical and opotherapeutic preparations, B., 218.

Faucett, P. H., hat and fabric finishes, B., 17, 691.

Faucounau, L., new method of preparing catalysts, A., 1212.

Faukes, C. E. See Wilson, W. C. Faulconer, W. B. M. See Bruun, J. H.

Faulkner, J. M., effect of administration of vitamin-C on reticulocytes in certain infectious diseases, A., 765.

See also Taylor, F. H. L. Faulkner, L. E., and Wilson Welder & Metals Co., are welding electrode, (P.), B., 1000.

Faulkner, O. T. See Anderson, A. W. Faull, R. F., and Rollefson, G. K., behaviour

of iodine in sensitised decompositions of gaseous organic compounds, A., 1348.

Faunce, B. R., pharmaceutical preparation and dentrifice, (P.), B., 1235.

Faure, A., and Pallu, S.N.P. photo-densimeter [photometer], A., 1354.

Faure, L., wrought copper-bearing steels capable of precipitation-hardening, B., 839.

Fauré-Frémiet, E., elastoïdin fibres. II. Elastic properties, A., 1462.

and Woelfflin, R., elastoïdin fibres. I. Imbibition of water. III. Titration curve, A., 1462.

Faus, H. T. Sce Gen. Electric Co.

Fauser, G., synthetic urea, B., 536. Production of a mixture of nitrogen and hydrogen by gasification of carbon under pressure, (P.), B., 495. Faust, H. W. See Carswell, T. S.

Faust, O., and Zellstoff-fabr. Waldhof, manufacture of solutions from cellulose, (P.), B., 926.

Faust, W. See Ott, E.

Fautrez, J., dispersion of multi-disperse solutions by Nistler's apparatus, A.,

Favorskaja, M. A., essential oil of Artemisia kryloviana, Steinb. (A. sieversiana, Willd., var. pygmaea, Kryl.), B., 571.

See also Rotenberg, I. A.

Favorski, A. E. [with Schostakovski, M. F., and Domnin, N. A.], triple linkings in carbon rings, and the possible structure of the simpler cyclic hydrocarbons

of the formula C_nH_{2n-4} , A., 1238. [with Zalesskaja, T. E., Rosanov, D. I., and Tschelincev, G. V.], molecular conversion of ketones into [different] ketones by the action of zine chloride at high temperatures, A., 471.

Margules, E. Z., and Davuidova, M. I., synthesis of tetrachloroethane from acetylene and chlorine, B., 1032

and Mochnatsch, V. O., preparation of acetylenecarboxylic acids with sodamido; synthesis of ethylpropiolic acid, A., 313. Geometrical isomerism of halogen-substituted othylenic acids; synthesis of β -bromo- Δ^a -pentenoie acids, A., 705.

and Tichomolov, P. A., mutual influence of radicals on their migration; dehydration of phenyltert .- amylcarbinol, A., 721.

Fawcett, D. L. See Fawcett, Ltd., T. C. Fawcett, E. W. See Imperial Chem. Industries.

Fawcett, H. S. See Klotz, L. J., and Weindling, S.

Fawcett, H. W., centrifugal separators, (P.), B., 962.

Fawcett, Ltd., T. C., Fawcett, D. L., and Bottomley, A. E., presses for granular, semi-plastic, and similar materials [e.g bricks], (P.), B., 305. [Plant for] preparation of material for making bricks,

etc., (P.), B., 1042. Fawkner, T., barley for malting, B.,

Fay, C. H., scattering of fast neutrons by heavy nuclei, A., 1314.

Fay, H. B. See Anthony, J. K. Fay, J. W. J., and Paneth, F. A., concentration of artificially produced radio-elements by means of an electric field, A., 573.

See also Glückauf, E.

Fays, R. See Alsa Soc. Anon.

Fazekas, I. G., changes in blood [produced] by experimental ammonia poisoning, A.,

Fazikas, J. F. See Barker, S. B., and Himwich, H. E.

Fazzioli, I., elimination of iron from solutions of copper salts containing organic

substances, B., 1150. Feagley, C. C., and Krebs Pigment & Color Corp., heat-treatment of pigments, (P.), B., 243.

Fearnley, G., microscopy in the paint industry, B., 380. Paint failures on plaster surfaces, B., 1154.

Fearon, W. R., structure of uroa with reference to its deamination synthesis by urease, A., 1298.

and Webb, D. A., diffusion methods in qualitative micro-analysis; detection of acetone and alcohol in biological liquids, A., 1308.

Feaster, J. F., vitamin- B_1 and B_2 in growth and lactation of rats; effects of extracts of vitamin- B_1 and B_2 ; distribution of vitamin- $\vec{B_2}$, A., 646.

and Nelson, V. E., vitamin-B₁ and -B₂, A., 390. Diet in relation to reproduction and rearing of young, A., 1409.

Federov, P. I., Smelenskaja, L. E., and Levitin, I. A., mixing of sodium-buta-dieno rubbers of different plasticities, B., 511.

Fedi, J. A. H., preparing concrete coverings for roadways, (P.), B., 500.
Fedorov, A. J. See Machtinger, A. I.

Fedorov, B. P., anthracene derivatives. I., A., 976. Conductivity of the double sulphates of the magnesium series in aqueous solution, A., 1205. Preparation of aniline hydrochloride, B.,

and Spriskov, A. A., volumetric determination of the xylidine isomerides with bromide-bromate solution, A. 1281. Determination of isomerides of xylidine by bromide-bromate titration, B., 536.

Fedorov, V.S. See Bondarenko, B.I. Fedorova, M.S. See Gastev, J.Fedorova, O.S. See Pamfilov, A. V

Fedoseev, P. N. See Kozlov, N. S. Fedoteev, N. P., and Kinkulskaja, R. N., electrolytic production of alkali metals from non-aqueous solutions, A., 942.

Fedotova, E.A. See Rosanov, S. N. Fedotova, O. J. See Davankov, A. B. Fedotova, T., biochemical method for determining parasitism in Fusarium, A., 1421.

Feenberg, E., does the α -particle possess excited states? A., 401. Relativity corrections in the theory of the deutcron, A., 1442.

and Knipp, J. K., intra-nuclear forces, A., 134.

and Share, S. S., nuclear three- and fourparticle eigenvalue problems, A., 1175.

Fehér, D., variations in soil reaction, B., 466. Influence of water content on p_H value [of soils], B., 897.

and Frank, M., periodic cycle of nitrogen, phosphorus, and potassium of forest soils, B., 610.

See also Killian, C.

Fehér, F., and Klötzer, F., crystal structure of hydrogen peroxide, A., 143. See also Simon, Arthur.

Fehre, W., differences in treatment of spun plant fibres and weaving and twine fibres, В., 363.

Fehrenbach, C. See Foëx, G. Feibelmann, R., hydrosulphometer and vatometer [for testing hyposulphites and vat dye liquors], B., 928.

Feigl. F., induced and catalysed reactions, A., 1211. Use of spot-reactions in identification of substances soluble with difficulty in acids, A., 1219.

and Singer, A., detection of lead in pharmaceutical preparations, B., 252. and Uzel, R., qualitative micro-analysis, A., 695.

See also Leitmeier, H.

Feil, F. See Bauer, J. Feil, L. See Bauer, J.

Feild, A. L., slag control for alloy forging steel, B., 410.

and Alloy Research Corp., ornamental rustless iron product, (P.), B., 238.

and Rustless Iron Corp. of America, iron-chromium alloys, (P.),

einberg, E. L., relationships between atomic lattices, A., 551. Possibility of applying the Thomas-Fermi method Feinberg, to metallic cohesion, A., 552.

Feinberg, R. S. See Himmerich, F. Feinschmidt, O., transformations of adenosinetriphosphoric acid in muscle. IV. Transformation of adenosinetriphosphoric acid in muscle of hibernating animals, A., 1411.

See also Ferdmann, D.

Feinstein, H. See Lavine, I. Feirabend, G. H. O. See Linden, (Gräfin)

M. von.

Feist, K., Awe, W., and Kuklinski, M., 2-aminopyridine series. IV. Reactivity of the methyl group in 6amino-2-piceline, A., 1519.

Awe, W., and Völksen, W., 2-amino-pyridine series. III. 2-Salicoylamidopyridine and its electrolytic reduction to 2-o-hydroxybenzylaminopyridine, A., 83.

and Brachvogel, R., bitter principles of calumba root. IV., A., 730. Brachvogel, R., and Völksen, IV., bitter

principles of calumba root. V., A.,

and Kuklinski, M., 2-phenylquinoline series. I. Synthesis of bromine-substituted 2 - phenylquinoline - 4 - carboxylic acids; reactivity of the bromine therein; Curtius degradation of 6and 4'-bromoatophan. II. Reactivity of amino-group in 4-amino-2-phenyl-quinoline, A., 735, 863. 2-Amino-pyridine series. V. Reactivity of the amino-group in 6-amino-2-picoline, A., 1519.

Kuntz, E., and Brachvogel, R., bitter principles of calumba root. III., A., 89.

and Overberg, L. S., citrolimonin. I., A., 995

Feitknecht, W., basic salts. XIII. Constitution of solid basic salts of bivalent metals. I. Basic cobalt halides with

single-layer lattice, A., 669.
and Collet, A., basic salts. XIV.
Constitution of solid basic salts of
bivalent metals. II. Basic nickel halides with simple laminated lattices, A., 1080.

and Fischer, G., basic salts. XII. Chemistry and morphology of basic salts of bivalent metals. IV. Basic cobalt bromides, A., 692.

and Lotmar, W., structure of green basic cobalt bromide, A., 16. Topochemical reactions of compact-disperse materrials. IV. Mixed precipitation of nickel-zine and cobalt-zine hydroxides, A., 175.

See also Lotmar, W.

Feitshans, F. R. See Clark, W. G. Feldberg, W., and Guimārais, J. A., salivary secretion, A., 501.

Felder, D. H. See Texas Co.

Felder, J., excitability of the respiratory centre in dependence on the thyroid and spleen, A., 220.

Feldman, H., Donk, E. C. van, Steenbock, II., and Schneider, E. F., hydræmia as a factor in anomia of pregnancy, A., 1408.

Feldman, J. A., and Allison, E., crude methyl alcohol, B., 404.

Ivanov, K. N., and Naumova, A. I., siderite as basic material for catalytic synthesis of ammonia, B., 190.

Feldman, J. C., and Kopeliovitsch, E. L., antimalarial drugs; syntheses in the acridino series, A., 84.

Feldman, O., synthesis of petroleum, B., 915. Feldman, W. See Internat. Precipitation Co.

Feldmann, E., tin oxide, (P.), B., 19.

Feldmann, J. See Tomiček, O. Feldmann, L. See Fischer, H. O. L.

Feldmann, W., and Stoecker, J., gas flow in relation to charging in blast furnaces, B., 597.

Feldmuehle Akt.-Ges. vorm Loeb, Schoenfeld & Co., artificial silk, etc., (P.), B., 269

Feldspathic Research Corporation. Weis, J. H.

Felix, K., Baumer, L., and Schörner, E. fate of protamines in the fertilised egg, A., 1544.

and Moebus, H., transformation of urobilinogen in the liver, A., 105.

and Müller, H., metabolism of argininic

acid, A., 885. Fell, E., potentiometric analysis in the smelter laboratory, B., 993.

Fellenberg, T. von, detection of formaldehyde in preserved fish products, B., 393. Determination of the butter fat contents of edible fats and of foodstuffs in general, B., 1230.

Fellers, C. R., vitamin content of important foods in the child's diet, B., 217.

See also Buck, R. E., Mack, M. J., Maclinn, W. A., and O'Connor, M. G.

Fellinger, K., and Hochstädt, O., effect of antithyroidal protective substance on the Reid Hunt test, A., 1426.

and Schlesinger, A., effect of therapy on behaviour of ether-soluble anti-thyroid protective substances of blood in thyroid disease, A., 1016.

Fellner, O. O., is there an antagonism of sex hormones? A., 388. Hormones and external sex organs, A., 643.

Felloni, G., action of cocaine on respiratory function of blood, A., 1022.

Fellows, M. D. Sec Boyd, E. M., and

Elden, C. A. Fellows, R. L., and Howe, E. E., effect of mill additions on thermal expansion of

sheet-iron ground-coat enamels, B., 544. Fels, E., hormone of the corpus luteum, A., 117. Corpus luteum hormone and its purification, A., 644.

Felsing, W. A., and Drake, G. W., determination of heat capacities and heat capacity ratios of gaseous hydrogen cyanide and hydrogen sulphide, A., 1330.

and Phillips, B. A., partial vapour pressures of methylamine solutions, A.,

See also Bratton, A. C., jun., and Mehl, W. Felton, W. R. See Darlow, A. E.

Fenby, J. J., drying method and apparatus,

(P.), B., 961. Fender, F. G., and Vinti, J. P., doublyexcited states in helium, A., 261.

Feng, T. P., neuromuscular junction. Π . Antagonism between calcium and curarising agencies, A., 1553.

Fenger, E. P. K. See Duncan, G. R. Fenger, F. See Andrew, R. H.

Fenger-Eriksen, K., Krogh, A., and Ussing, H., micro-method for accurate determination of D2O in water, A.,

Fenn, W. O., diffusion of nitrogenous compounds from frog muscles in Ringer's

solution, A., 367. and Cobb, D. M., evidence for a potassium shift from plasma to muscles in response to increased carbon dioxide tension, A., 220. Electrolyte changes in muscle during activity, A., 1413.

Fenner, C. N., copper deposits of the Southern Appalachian region, A., 1357. Bore-holo investigations in Yellowstone

Park, A., 1357.

Fenoglio, M., vogesite from Ginepro (Island of Elba), A., 958. Nesquehonito from the Cogne mines, Val d'Aosta, A., 958.

Fenske, M. R., Tongberg, C. O., Quiggle, D., and Cryder, D. S., fractional-distillation columns, B., 768.

See also Cannon, M. R., Hersh, R. E., Tongberg, C. O., and Varteressian, K. A.

Fenton, R. M., continuous pair furnace, (P.), B., 998.

Fenwick, C. E. See Brit. Thomson-Houston Co.

Feolaktikov, V. V., and Ivanov, A. A., synthesis of cyclohexane-1:1:4:4-tetracarboxylic and -1:4-dicarboxylic acids, A., 725.

Feraud, (Miss) K., Dunn, M. S., and Kaplan, J., spectroscopy of amino-acids and their derivatives. I. Ultra-violet absorption of l-tyrosine, dl-phenylalaninc, and l-tryptophan, A., 135. Ultraviolet absorption spectrum of tyrosine, A., 1178.

Ferdmann, D., and Feinschmidt, O., transformation of adenosinetriphosphorie acid in muscle. II. Relation between dephosphorylation of the acid, production of ammonia, and degradation of creatinephosphoric acid during muscular activity, A., 511. Biochemistry of hibernation, A., 1143.

Feinschmidt, O., and Dmitrenko, M., transformations of adenosinetriphosphorie acid in muscle. III. Isolated

muscle, A., 754.

Ferguson, A., and Kennedy, S. J., free and total surface energies and related quantities, A., 1185.

Ferguson, C. S., and Raeicot, P. A., detection of gelatin in dairy products, B., 1065.

Ferguson, C. V. See Dornte, R. W. Ferguson, G. E. See Olsen, J. C. Ferguson, H. P. See Goodwin, R. T.

Ferguson, John, centrifugal glass-melting furnace, (P.), B., 455. Electric [glass] furnace and its operation, (P.), B., 1001. Mixing and discharging the contents of an electric glass furnace, (P.), B., 1001. Glass furnace, (P.), B., 1001.

and Fairmount Glass Works, Inc., electric furnace, (P.), B., 240. Electrically melting and refining glass, (P.), B., 544. Controlling current flow in an electric furnace and electrode apparatus therefor, (P.), B., 647. Melting of material in an electric furnace, (P.), B., 1001. Electric glass furnace, (P.), B., 1001.

Ferguson, John (Runcorn), relation between toxicities and b.p. of related substances, A., 517. Secretin XI: its effect on the reticulocytes of the circulating blood, A., 1529.

and Ivy, A. C., magnesium sulphate and

catharsis, A., 1550.

Ferguson, J. B., Musgrave, J. R., and Patton, J. R., base-exchanging properties of synthetic aluminosilicate materials, B., 986.

See also Showalter, H. A., and Wood, E. E.

J. H., decalcifying anti-Ferguson, coagulants, A., 1531.

Ferguson, R. M., and Oakden, J. C., heat-transfer coefficients for water and steam in a surface condenser, B., 720.

Ferguson, S., experiences with the mercury boiler and turbine, B., 127.

Ferguson, W. S., and Bishop, G., determination of carotene in agricultural products, B., 1067.

See also Gillam, A. E., and Watson, S. J. Fergusson, W. C., Slotin, L., and Style, D. W. G., absorption spectrum of aqueous chlorine and hydrogen peroxide vapour, A., 775.

Ferier, A., and Ferier, B., preparation of compositions for use as sizes, or for

production of sizes, (P.), B., 985. Ferier, B. Sco Ferier, A. Ferkel, K. A., Ellis, A. I., and Beryllium Corp., recovery of beryllium oxide, (P.), B., 407.

Ferloni, A. V. J. Sco Ontaneda, L. E. Fermi, E., recombination of neutrons and

protons, A., 1442. and Amaldi, E., ∞ s orbits of the elements, A., 133.

Pontecorvo, B., and Rasetti, F., effect of substances containing hydrogen on artificial radioactivity excited by neutrons. II., A., 132.

and Rasetti, F., slow neutrons, A., 658. See also Amaldi, E.

Fermor, L. L., chemical composition of the Deccan trap flows of Linga, Chhindwara District, Central Provinces, A., 307.

Fernandes, J. S., maturation of meat; how to improve "xarque," B., 1066.

Fernandez, I. E. E., Congo-red test in nephropathics, A., 884. Fernandez, O., and Castillo, M., use of

2:4-dinitrophenylhydrazine, A., 1115.

Fernandez, R. See Foglia, V. G.
Ferney, F. X., phosphoric acid and phosphates from Nelsonite ore, B., 316.

Fernholz, E., attempted partial synthesis of ergostane, A., 1102.

Fernseh Akt.-Ges., application of light-sensitive layers to films in intermediate film television installations, (P.), B., 221. Cathode-ray tubes, (P.), B., 941.

Ferramola, R., nucleoproteins from B. anthracis, A., 641.

See also Bonorino, U.C., and Vanossi, R.Ferrand, M. See Manceau, P., Policard, A., and Revol, L.

Ferranti, and Micheli, action of adrenaline and insulin on proteolytic enzymes of blood, A., 1025.

Ferranti, Ltd., and Dawson, J., [rapid] measurement of moisture content of sands, powders, etc., (P.), B., 1184. and Taylor, M. K., mixture of powders,

Taylor, M. K., and Sutton, R. W., electric-discharge devices, (P.), B.

1164.

(P.), B., 1024.

Ferrari, A., Baroni, A., and Colla, C., cadminitrites of univalent metals, A., 39.

and Colla, C., mercurinitrites of univalent metals, A., 39. Mixed nickelnitrites of uni- and bi-valent metals. II., A., 41.

and Curti, R., oxyhalides of nickel obtained by Sénarmont's synthesis, A., 692.

See also Cambi, L.

Ferrari, F., puzzuolana cements containing gypsum, B., 545.

Ferrari, G., detection of aeridine derivatives in urine, A., 362.

Ferrari, R., action of hormones on secretion of digestive enzymes; effect of thyroid, parathyroidectomy, and insulin, composition of gastric juice, A., 386. Ferrarini, E. See Bucciardi, G.

Ferre, A. W., and Sturtevant Co., Inc., B. F., drying apparatus, (P.), B., 351. Ferree, J. C., properties of processed soya,

B., 568, 903.

Ferreira, B. F., and Wheeler, T. S., benzoin reaction. V. Effect of inhibi-

tors, A., 471.

Ferrell, E., Ridgion, J. M., and Riley, H. L. [with Chambers, S.], potentio-metric investigation of electrolytic dissociation. IV. Anion affinity of copper, zinc, cadmium, silver, and hydrogen ions, A., 1203.

Ferrero, P., and Deltombe, E., dehydrogenating cracking of ethane, A., 1358.

Ferrey, G. J. W., determination of ferrous iron in presence of organic matter by Heisig's method, B., 76.

Ferri, C. See Meyer, K. H.

Ferri, L., borates of zinc, tiu, or copper, (P.), B., 1151.

Ferrière, H. D. See Zimmet, D. Ferro Enamel Corporation. See Chester,

Ferris, C. A. See Hoskins, W. M. Ferris, E. B., jun. See Capps, R. B. Ferris, S. W. See Henderson, L. M. Ferry, C. W. See Buck, J. S.

Ferry, J. D., statistical evaluation of sieve

constants in ultrafiltration, A., 1336.
and Parks, G. S., glass. XIII. Glass
formation by a hydrocarbon polymeride, A., 278. See also Elford, W. J.

Ferry, N. S., and Parke, Davis & Co.,

biological medicament [for treatment of gonorrheal infections], (P.), B., Meningococcus toxin, (P.), B., 716.

Fersman, A. E., periodic system of energy coefficients, A., 13. Geochemical characteristics of protocrystallisation, A., 48. Polar isomorphism, A., 672. Application of "eks" to determining crystal lattice energy, A., 925. Geochemistry of alkaline magmas, A., 957. Application of VEK in geochemistry, A., 1226.

Ferui, Y. See Ishikawa, Fusao. Ferville, J. See Damade, R.

Fery, C., dry tin accumulator, B., 554.
Feskov, G. V. See Lepkovsky, S.
Fessenden, R. W., and Redmon, B. C., kinetics of the permanganate-oxalate reaction. I. Effect of various salts on rate of reaction, A., 33.

Fessler, W. A., and Shriner, R. L., derivatives of tert .- alcohols; hydrogen phthalatcs, A., 1251.

Fester, G. A., pyknometer, A., 46. and Bertuzzi, F. A., calcium arsenate, B., Fester, G. A., and Cruellas, J., origin of petroleum, A., 51.

and Pucci, D., simplified condensation with sodium ethoxides (βζ-dimethyl- Δ^{ϵ} -heptenol), A., 1229.

and Schivazappa, M., attempts to reduce carbon monoxide electro-catalytically, A., 591.

Fetherston, H. L., bronze joints for copper, B., 198.

Fetissova, T. See Michlin, D. Fetters, G. E. Seo Van Meters, J. W.

Fetz, E., hardenable bronzes on a coppernickel-tin basis. IV. Influence of heat-treatment on corrosion-resistance. VI. Additivity of cold-work hardness and precipitation hardness, B., 198, 889. Temper-hardenable with a copper-nickel-tin bronzes basis. II. Wrought alloys, B., 457.

and Jette, E. R., phaso relationships in the nickel-tin system, A., 1333. See also Jette, E.R.

Fetzer, W. R., and Evans, J. W., Brix factors for solutions of corn syrup and corn sugar, B., 1120.

Feulgen, R., a- and b-thymonucleic acid and the enzyme transforming the a- into the b-form (nucleo-gelase), A., 244. Preparation of b-thymonucleic acid by nucleo-gelase, A., 500.

Feussner, O., and Heraeus G.m.b.H., W. C., electrical resistance [silver-wire] thermometer, (P.), B., 240.

and Jedele, A., [precious-]metal article, (P.), B., 646.

Feustel, I. C., and Byers, H. G., behaviour of lignin and humic acid preparations towards a bromination treatment, B., 1010.

Fevold, H. L., and Hisaw, F. L., concentration of gonadotropic substance from pregnancy urine, A., 1564.

Hisaw, F. L., and Greep, R. O., effect of estrin on activity of the anterior lobe of the pituitary, A., 1427. Sco also Greep, R. O.

Feyel, P., blood-chloride and renal secretion of urea in mice, A., 890. Influence of dietary factors on renal secretion of urea in mice, A., 890. Influence of renal secretion of urea on functioning of the chloride resorption mechanism in the

mouse, A., 890. Feytaud, J., and De Lapparent, P., use of resin and terpene derivatives in preparation of insecticides, B., 293.

Fialkov, J. A., physico-chemical investigation of iodine solutions, A., 1197.

and Kuzmenko, G. A., thermal analysis of the systems iodine-Lil, -KI, -RbI, or -TII, A., 290.

and Schargorodski, S. D., thermal decomposition of sodium sulphate in presence of silica and kaolin, A., 1075.

See also Plotnikov, V.A.

Fiandaca, S., determination of total phosphorus in organs and organic liquids. I., A., 260.

and Capizzi, I., determination of total phosphorus in organs and organic liquids. II., A., 260. Determination of total magnesium in organs and organic liquids, A., 396.

See also Serio, F. Fiberloid Corporation. S. F. A., and Webber, C. S. See Parkhurst,

Fibre Making Processes, Inc. See Glöersen,

Ficai, C., and Rigoni, A., combustion of explosives for use at high levels. I. Gunpowdor, B., 861.

Fichter, F., and Dinger, A., Chrétien's iodine sulphate, A., 691.

and Heer, J, oxidation of ethyl hydrogen methylmalonate and of ethyl hydrogen succinate with potassium persulphate, A., 314.

and Metz, F., electrolysis of mixtures of n-butyrates with nitrates, A., 822. Electrolysis of mixtures of isovalerates and nitrates, A., 965.

and Stenzl, H., anodic oxidation of brucine and nicotine, A., 1527.

See also Stenzl, II.

Fickert, slaking properties of lime, B., 367. Ficklen, J. B., Newell, I. L., and Pike, N. R., organic compounds as analytical reagents. II. Cinchonine iodide as reagent for determination of bismuth, A., 304.

See also Newell, I. L.

Fidler, F. A. See Chapman, A. W. Fiedler, M., surface plating of metals with alloys, (P.), B., 604.

Fiedler, S. O., and Du Pont Rayon Co., steeping of collulose and press therefor,

(P.), B., 450. Field, C., considerations influencing the

formulation of chemical engineering projects, B., 671.

Field, Edmund. Sco Evans, W. V. Field, Edward. Sco Terry, J. B. Field, H. C. Sec Hayes, C. I.

Field, J. W., and Kandiah, M., uso of Mayor's reagent for detection of quinine in alkaline urine, A., 362.

Field, W. H. See Sadtler, S. S.

Fielder, H. S., and Cherry-Burrell Corp., temperature-centrol means for liquid heaters, (P.), B., 255. Fieldner, A. C., and Davis, J. D., plant

experiments with the Bureau of Mines-American Gas Association carbonisation retort, B., 771.

Selvig, W. A., and Frederic, W. H., classification chart of typical coals of the United States, B., 224.

See also Davis, J. D.

Fields, J. D., lubricating oil, (P.), B., 822. Fierens, B., and De Nayer, P. P., inhibition by fats of the gastric secretion caused by histamine, A., 1020.

Fieschi, A., and Larizza, P., composition of plasma and red blood-cells in nephro-

pathy, A., 627.

Fieser, L. F., and Bradsher, C. K., orientation of p-methoxydiphenyl in the Friedel-Crafts reaction, A., 1374.

and Dunn, J. T., synthesis of plumbagin, A., 728. Addition of dienes to naphthacenediquinone, A., 992.

Fieser, M., and Hershberg, E. B., synthesis of phenanthrene and hydrophenanthrene derivatives. Hydrocarbons of the chrysene, acechrysene, and 3:4-benzphenanthrene series; 1:2-benzpyrene derivatives, A., 1240.

Fieser, M., Hershberg, E. B., Holmes, H. L., and Newman, M. S., synthesis of substances of possible physiological

activity, A., 1378. Hartwell, J. L., and Seligman, A. M., mechanism of the Hooker oxidation, A., 1112. and Hershberg, E. B., synthesis of phenanthrene and hydrophenanthrene derivatives. II. Hydrocarbon syn-

thesis, A., 203.

Fieser, L. F., Holmes, H. L., and Newman, M. S., oxidation of a- and β -naphthyl

methyl ketones, A., 983. and Jacobsen, R. P., precision combustion of natural products, A., 1133.

and Lothrop, W. C., structure of anthracene, A., 835. Mills-Nixon effect, A., 1503.

and Martin, E. L., conversion of tolyl naphthyl ketones into methylbenzanthrones, A., 1380.

and Newman, M. S., ouabain, A., 1116.

and Price, C. C., effect of substituents on phenanthrene-bromine addition reaction, A., 1498.

and Seligman, A. M., cholanthrene and related hydrocarbons, A., 197. Pyrolysis of tetrahydronaphthyl naphthyl ketones, A., 605.

See also Hooker, S. C., Martin, E. L., and Overbaugh, S. C.

Fieser, M. See Fieser, L. F. Fiessinger, N., Bénard, H., Courtial, J., and Dermer, L., combustion of ethyl alcohol during perfusion of the liver, A., 1291.

Bénard, H., Herbain, M., and Dermer, L., blood-sugar equilibrium in simultaneous portal and arterial perfusion of the liver, A., 887.

and Gajdos, A., lipase content of normal liver and liver in fatty degeneration, A., 231. Lipolytic enzyme of Galleria mellonella, A., 637. Liver-lipase in pathology and therapeutics, A., 752. Hepatic origin of serum-lipase, A., 1297.

and Naville, M., influence of thyroxine on passage of galactose [into the blood and urine], A., 1031.

Fife, H. R. See Carbide & Carbon Chem-

icals Corp. Fife, J. G., internal electrolysis. I. Determination of small quantities of cadmium

and nickel in zinc, A., 1479. Fife, J. M., micro- and macro-Kjeldahl steam-distillation apparatus, A., 1085.

Fifield, C. C., Snider, S. R., Stevens, Harland, and Weaver, R., carotene content of wheat varieties in the Pacific Northwest, B., 951.

Figg, L. J., jun. Sec Eastman Kodak Co. Figurovski, N. A., causes of loss of platinum in oxidation of ammonia at a platinum gauze, B., 452.

Fikentscher, R., porphyrin in the serum of fœtuses and newborn children, A., 1135.

Fikri, M. M. See Sabri, I. A. Filbert, W. F. See Lauer, W. M.

Fildes, P., and Richardson, G. M., aminoacids necessary for growth of Cl. sporogenes, A., 113.

See also Knight, B. C. J. G.

Filho, A. C., rotenone content of some Brazilian species, B., 1061.

Filimonova, \hat{G} . See Komarov, F.

Filinov, I. E., and Schatalov, V. P., determination of acetaldehyde and carbon dioxide, B., 10.

Filipczyk, L., and Kulesza, M., sodium xanthate, A., 1078.

Filipello, F. See Nichols, P. F.

Filipovitsch, I. V., investigation of stored stump rosin from Pinus sylvestris, B.,

Filippo, A. J. D., silicosis, B., 430.

Filippov, A., Larionov, J., and Seidel, A., fluorescence of terbium salts in solutions, A., 778.

Filippov, M. See Divilkovski, M.

Filippova, N. S., and Sluckaja, M. M., interoferometric analysis of heavy water, A., 1478.

See also Brodski, A. E.

Filitti-Wurmser, (Mme.) S. See Wurmser,

Filla, E., significance of the vegetative nervous system on regulation of bloodsugar, A., 386.

Filliat, G. P. See Soc. à Resp. Ltée.

"Laboratoire Egé."
Filmer, J. F. See Underwood, E. J.

Filtration Equipment Corporation. See Laughlin, W. C.

Filtration & Water Softening Proprietary, Ltd., [sand] filters, (P.), B., 400.

Filtrol Co. of California. W. S., and Belden, D. S. See Baylis,

Filtros, Inc. See Kuppinger, W. C.

Finaly, S. von, composition of Hungarian "liquid apple," B., 810.

Finbak, C., and Hassel, O., acid fluorides of univalent cations, A., 439. Rotation of anionic polyhedra in cubic crystals. I. Perchlorates. II. Borofluorides, A., 669,

Finch, A. H., zinc and other mineral constituents in relation to rosette disease of pecan trees, B., 806. Pecan filling and maturity, B., 1116.

Albert, D. W., and Kinnison, A. F.,

control of citrus chlorosis or decline,

B., 1117.

and Kinnison, A. F., zinc treatment of pecan rosette, B., 38.

and Van Horn, C. W., moisture relations of pecan leaves, A., 767.

Finch, G. I., "extra" electron diffraction

rings, A., 17.

and Fordham, S., effect of crystal size on lattice dimensions, A., 274.

and Quarrell, A. G., the Beilby layer, A., 668.

and Sun, C. H., electron-diffraction study of structure of electro-deposited metals, A., 784.

and Wilman, H., "extra" rings in graphite electron diffraction patterns, A., 414. Diffraction of electrons by graphite, A., 1187. Diffraction of by electrons molybdenite, 1451.

See also Aylmer, A. E.

Finder, H. J., and Greene, D. H., paper,

(P.), B., 588. Findlay, G. H., and Snell, J. F., constituents of sap of sugar maple (Acer saccharum, Marsh), A., 124.

Findlay, G. M., variation in animal viruses, A., 1562.

Alcock, N. S., and Stern, R. O., virus ætiology of one form of lymphocytic meningitis, A., 752.

See also Mackenzie, R. D.

Findlay, W. P. R., influence of certain calcium compounds on rate of decay of wood by fungi, B., 499.

Fine, J., sliding ground-glass joint, A., 698. Benedict's qualitative [sugar] test, A., 709.

Sears, J. B., and Banks, B. M., effect of oxygen inhalation on gaseous distension of the stomach and small intestine, A., 1542.

Fineschi, S. See Salani, R. Fingas, E. See Kröger, C.

Fingerling, G., Eisenkolbe, P., Just, M., Hientzsch, B., and Kretzschmann, F., decomposition of straw without chemicals, B., 925.

Fingland, J. J., Turnbull, A. D., McIntyre, P. F., and Consolidated Mining & Smelting Co. of Canada, refining of leadbismuth alloy, (P.), B., 26.

Fink, A. See Baroni, E.

Fink, C. G., cathode-film control and metal deposition, B., 106. Electrochemical protection of iron and steel against corrosion, B., 890.

and Dehmel, R. C., potential differences at metal-vapour, vapour-liquid, and liquid-metal interfaces of partially immersed electrodes, A., 1342.

and Schreurs, J. J., effective discharge potential of the Cottrell precipitator, B., 1000.

Fink, G. A., Dunning, J. R., and Pegram, G. B., absorption of slow neutrons in carbon, A., 402.

Dunning, J. R., Pegram, G. B., and Mitchell, D. P., velocities of slow neutrons, A., 264.

See also Dunning, J. R., Mitchell, D. P., and Rasetti, F.

Fink, G. J., and Lindsay, F. K., activated alumina for removing fluorides from drinking water, B., 1134.

Fink, H. (Berlin), hop pectin and its significance in brewing, B., 118. Fodder yeast, B., 1227.

Haehn, H., and Zenger, E., formation of respiration enzymes during germination of barley, A., 758.

and Just, F., hop pectin, B., 39, 248. and Lechner, R., preparation of fodder

yeast from wood-sugar solutions. III. Nitrogen of wood-sugar worts, B., 857. Production of fodder yeast from sulphite waste liquors, B., 1227.

Lechner, R., and Heinisch, E., preparation of fodder yeast from wood-sugar solutions. II, B., 251.

Fink, H. (München), separation of electrically-charged substances from very dilute true or colloidal solutions, (P.), B., 157.

Fink, W. L. See Aluminum Co. of America. Finkeldey, F. A. B., high-silica cement, (P.), B., 1208.

Finkeldey, W. H., atmospheric corrosion of non-ferrous metals and alloys, B.,

Finkelnburg, W., validity of the Franck-Condon principle for evaluation of intensity distribution in molecular spectra, A., 774. Theory of detonation, B., 525. Finkelstein, B. N., equation of state for

strong electrolytes and the virial law, A., 1Ĭ97.

Finkelstein, D. N., rapid dynamic method of determining sulphur dioxide in air, A., 1219.

Finkelstein, V. S., solvation in non-aqueous solutions, A., 1065. Electrolysis of non-aqueous solutions, A., 1072. Solvation and complex formation in solutions of electrolytes, A., 1203. and Kurnossova, P., Raman effect of

non-aqueous solutions of electrolytes. I. Solutions of arsenic halides, A.,

and Rubanik, M. [with Poljakova, II. V.], kinetics of ammonia synthesis on technical iron catalyst, B., 985.

See also Aschkinasi, M. Finlay, R. H. F., liquid feeding devices for electrolytic cells, (P.), B., 1104.

Finlayson, A. See Andrews, P. R. Finlayson, D. See Brit. Celanese.

Finlayson, D. A. See Crampton, E. W.

Finlayson, T. C., development of chemical engineering in the gas industry, B.,

Finley, D., and Parassine Companies, Inc., covering for curing concrete, (P.), B.,

Finn, A. N. See Glaze, F. W.

 Finn, C. P., smokeless fuel, B., 818.
 Finn, D. B., nutrient value of marine products. IV. Vitamin-A content of commercial pilchard oil, B., 122.

Finnemore, H., Reichard, S. K., and Large, D. K., cyanogenetic glucosides in Australian plants. III. Eucalyptus cladocalyx, A., 1435.

Finney, G. D. See Evans, R. D.

Fintiktikova, S. A. See Musserski, N. N.

Finzenhagen, H. See Bünger, H.

Finzi, C., and Bellavita, V., diphenyl series. IX. Nitration of 2:4'-derivatives of diphenyl, A., 1378.

Fioletova, A. F., determination of sulphur in silicates, A., 442. and Chaikina, S., determination of ferric

oxide, A., 444.

Fiore, G., mineral oil-substitute paint vehicle, (P.), B., 801.

Fiorentini, S., action of various hormones in vitro on normal bone-marrow and in presence of germs. I. Adrenal hormones, A., 762.

Fiorentino, M., Macchia, E., and Sanguigno, N., renal function tests. III. Phenolsulphonephthalein and other dyes, A., 1144.

Fiori, A., effect of the thyroid on bodyweight and nitrogen excretion, A., 645.

Fioroni, W. See Soc. Chem. Ind. in Basle. Firestone Tire & Rubber Co. See Cairns, R. W., and Park, C. R.

Firket, J., fog along the Meuse valley, A.,

Firmenich, A. See under Firmenich & Co. Firmenich, F. See under Firmenich & Co.

Firmenich, H. See under Firmenich & Co. Firmenich, R. See under Firmenich & Co. Firmenieh & Co., higher lactones containing at least eleven carbon atoms in the lact-

one ring, (P.), B., 1129. Firmitana Metallkeramik G.m.b.H., dry cooling of enamel [material], (P.), B., 1095.

Firor, W. M. See Grollman, A., and Reynolds, S. R. M.

Firsanova, E. See Rapoport, I. First, M. E. See McKinnon, H. L.

Firth, J. B., and Gething, H. H., oxidation of acetaldehyde and benzaldehyde by hydrogen peroxide in presence of selenium oxychloride, A., 850.

and Smith, T. A., chlorination of toluene in presence of activated charcoals, and iron-impregnated silica gel; production of side-chain substitution, nuclear substitution, and tolan derivatives, A., 599.

See also Edgington, B.

Firth-Sterling Steel Co., hard-metal [carbide] compositions, (P.), B., 330. See also Comstock, G. J., Stevens, A. H.,

and Welch, E. B.

Fischbeck, K., and Neundeubel, L., colorimetric determination of aliphatic aldehydes, A., 456.

Fischer, A., application of nomography to the calculation of calorimetric combustion temperatures, B., 1137.

Fischer, $A\overline{lb}ert$. See Lipmann, F.

Anton,Fischer, heat-denaturation proteins as a chain reaction, A., 749. Reaction chain in thermal denaturation of proteins, A., 803. Stabilisation of fibrinogen in blood-plasma, A., 1285. Action of formaldehydo on blood coagulation, A., 1402.

Fischer, A. C., sponge rubber sheet material having broken cells, said cells being filled with fertiliser, insecticides, or plastic fillers, (P.), B., 1172.

and Carey Manufg. Co., P., polymerised bituminous, premoulded expansion joint, (P.), B., 337. Constructional material, (P.), B., 992.

Fischer, A. J., economics of [sewage-]

sludge disposal, B., 765.

and Dorr Co., sewage-sludge treatment, (P.), B., 350.

See also Downes, F. A.

Fischer, E., dielectric constants of solutions

of electrolytes, A., 1197.

Fischer, E. \check{F} ., and Magnesium Development Corp., [magnesium] alloy, (P.), B., 1049. Fischer, E. J., tricthanolamine and other

alkylolamines in fat, oil, and wax industries, etc., B., 159. Asphalt, pitch, and tar cements, B., 1042.

Fischer, F., benzine synthesis from watergas as a source of Germany's supply of motor fuel, B., 51. Conversion of coal into liquid motor fuels and other products by way of carbon monoxide, B., 1137.

Bahr, T., and Meusel, A., catalytic reduction of carbon dioxide to methane and higher hydrocarbons at atmo-

spheric pressure, B., 180.
Peters, K., and Winzer, K., thermal decomposition of higher paraffin hydrocarbons on a glowing wire, B., 133.

and Pichler, H., increasing yield of liquid products by carrying out the Fischer-Tropsch benzine synthesis in stages, B., 306.

Pichler, H., and Kölbel, H., production of mixed gas for benzine synthesis by simultaneous interaction of cokeoven gas and coke with steam in a gas

producer. III., B., 51.
Fischer, F. G., and Wiedemann, O., biochemical hydrogenations. III. Hydrogenation of conjugated double linkings

by fermenting yeast, A., 588. Fischer, F. W. See Blume, W.

Fischer, G. (Berlin), and Schaffeld, W. D. dielectric constants of solutions of electrolytes, A., 425.

Fischer, G. (Bern). See Feitknecht, IV. Fischer, Georg. See Wagner, H.

Fischer, H., production of staple fibre, B.,

Fischer, H. (Clausthal). See Hock, H. Fischer, Hans, 2:4-dimethylpyrrole, A., 481. Diethyl 2:4-dimethylpyrrole-3:5-

dicarboxylate, A., 481.

and Bauer, K., chlorophyll. LXIX.
Chlorophyll - b. VIII. Purpurins, rhodins, and rhodinporphyrins from chlorophyll-b; analogies between chlorophyll-a and -b, A., 1270.

and Breitner, S., chlorophyll. LXVI. Comparative oxidation of chlorophyllide and derivatives, A., 739.

Doyle, R.J., and Gleim, W., porphyrins. XXXVIII. Synthesis of porphyrins and their derivatives, A., 1393.

and Friedrich, W., imidoporphyrins. II. Synthesis of monoimidoxtio and monoimidocopro-porphyrin, A., 1128.

Fischer, Hans, and Gleim, W., porphyrins.

XXXV. Synthesis of porphin, A., 87. and Goebel, S., chlorophyll. LXVII. Active hydrogens in chlorophyll derivatives. V. LXXIII. New ring fission of pheophorbide-a and pheoporphyrin-a₅, A., 739, 1273.

Haarer, E., and Stadler, F., porphyrins. XXXVI. Vinyl- and amino-porphins,

A., 1128.

Haberland, H., and Müller, Adolf, synthesis of di-iminoporphyrins. I., A.,

and Halbach, H., constitution of stercobilin, A., 346.

and Hansen, Kurt, synthesis of benzoylporphyrins, A., 86.

Herrle, K., and Kellermann, H., chlorophyll. LXXI. Mesopurpurin, vinylchlorin, and their derivatives, A.,

and Kahr, K., chlorophyll. LXXII. Isomerism between chlorin $p_{\mathfrak{g}}$ and ψ -chlorin- $p_{\mathfrak{g}}$ and their derivatives; elucidation of the pyrroline structure of ring III of chlorophyll, A., 1273.

and Kellermann, H., chlorophyll. LXX. Partial synthesis of phæoporphyrin-a, and phyllocrythrin, A., 1272.

and Krauss, Georg, chlorophyll. LXV. Synthesis of oxorhodophorphyrin, its conversion into 1:3:5:8-tetramethyl-4ethyl-2-hydroxyethylporphin - 6 - carboxylic acid-7-propionic acid; ψ -verdoporphyrin, A., 346.

and Lautsch, W., chlorophyll. LXXIV. Quantitative dehydrogenation of

phæophorbide-a, A., 1393.

and Libowitzky, H., uro- and coproporphyrin-I in acute porphyrinuria, A., 1140.

Müller, K., and Leschhorn, O., chlorophyll. LXVIII. Ketophylloporphyrins and their transition into deoxophyllerythrin derivatives, A., 1128.

and Seemann, C. von, porphyrins. XXXVII. Constitution of Spirographis-hæmin, A., 1270. Spirographis-hæmin, A., 1273.

and Stadler, F., biological degradation of chlorophyll. V. Dihydropyrophæophorbide-a and pyrophæophorbide-b from the fæces of sheep, A., 886.

Fischer, Hellmut, modern electrochemical processes for the protection of metallic surfaces, and their chemical and physico-chemical bases, B., 1044.

and Leopoldi, G., determination of small amounts of mercury with dithizene, A., 179.

See Glaswerk G. Fischer, Hellmuth. Fischer.

Fischer, H. G. M., Gustafson, C. E., and Gasoline Antioxidant Co., motor fuels containing inhibitors, (P.), B., 778. See also Standard Oil Development Co.

Fischer, H. O. L., and Baer, E., isopropylidencylyccraldehyde. III. Synthesis of d-fructose and d-sorbose from dglyceraldehyde or d-glyceraldehyde and dihydroxyacetone, A., 708.

and Feldmann, L., a-amino-βγ-dihydroxy-n-butyric acid. III., A., 711. Syn-thesis of a αα'-diamino-ββ'-dihydroxyadipic acid, A., 711.

Fischer, Johannes, galvanisation of aluminium [and its alloys], B., 552.

Fischer, Joseph [with Müller, Eberhard, and Knothe, H.], determination and detection of fluoride ion with lanthanum, A., 693.

Fischer, K., cmulsifier, A., 815.

Fischer, L. Sec Johnson, F. F.

Fischer, Martha. See under Glaswerk G. Fischer.

Fischer, Martin. See under Glaswerk G. Fischer.

Fischer, M. H., emulsification, B., 351. and Löwenbach, H., cardiazole as a reviver in animal experiments, A., 375.

Fischer, N. C., and Armour & Co., [desiccated] egg products, (P.), B., 619. Fischer, O. See Schwarz, G.

Fischer, P., solid electrolytes, A., 1072. Fischer, Ph., and Straller, H., detection of leucine and tyrosine [in urine], A., 362.

Fischer, P. Z., influence of pressure on conductivity of solutions, A., 1071. See also Plotnikov, V. A.

Fischer, R., and Ehrlich, H., detection of scopoletin in gelsemium and belladonna roots, A., 912.

and Kofler, A., dimorphism of trinitroresorcinol, bromobenzhydrazine, and benzaldehyde-p-nitrophenylhydrazone,

and Paulus, W., distinction between strophanthins "g" and "k" on the basis of microchemical identification of the sugars obtained on fission, A., 610.

and Reisch, O., detection of narcotics, particularly barbituric acid derivatives, în various materials, especially cerebrospinal fluid and blood, A., 750.

See also Kofler, A., and Salzer, H.

Fischer, T. Sec Caro, N.

Fischer, V., heats of vaporisation of ternary mixtures, A., 558. Thermodynamics of ammonia-water mixtures, A., 563.

Fischer, W. See Houben, J. Fischer, Werner (Freiburg), Dietz, W., Brünger, K., and Grieneisen, H., qualitative analysis of the ammonia and ammonium sulphide groups and of

phosphoric acid, A., 1352. and Jübermann, O., thermal properties of halides. X. Vapour pressures and vapour densities of gallium trihalides, A., 787.

Fischer, Werner (Heidelberg). See Elford, W.J.

Fischer, Werner H. See Ruzicka, L. Fischgold, H. See Weiss, J.

Fischinger, O., determination of small amounts of carbon monoxide in air by the iodine pentoxide method, B., 396.

Fischler, F., are potato- and maize-starch nutritionally equivalent? A., 509. and Schroter, A., has orally-administered

saccharin an influence on bloodsugar? A., 1284.

and Schwaibold, J., determination of the temperature of pasto formation of starch, B., 424.

See also Bleyer, B.

Fish, E. W., effect of vitamin-D on calcium

content of dentine, A., 256.
Fish, F. H., and Porter, J. L., gases liberated from Virginia coals by thermal decomposition at various temperatures, B., 481.

and Smith, J. M., jun., separation and determination of aluminium and zinc,

A., 1353. Fish, V. See Grosh, E. B.

Fishbein, M. S., new explosives, B., 956. Fishenden, M. Sco Lander, C. H.

Fisher, A., and Brassert & Co., Ltd., H. A., high-grade coke from practically non-coking coals, (P.), B., 259. See also Brassert & Co., Ltd., H. A.

Fisher, Alfred. See Universal Oil Products Co. Fisher, A. M., and Scott, David A., effect of various substances on the action of insulin, A., 1565.

See also Scott, David A. Fisher, C. H., Furlong, R. W., and Grant, M., condensation of polyhydric phenols with acctone, A., 838.

Fisher, E. A., fundamental principles of drying, B., 1. and Halton, P., gluten washing, B., 1174.

Fisher, E. E., and Nat. Pigments & Chem. Co., sodium barium aluminate, (P.), B., 368.

Fisher, E. F., apparatus for cooling liquids, (P.), B., 672.

Fisher, E. J. P., cold-drawn steel-spring wire, B., 196. Fisher, E. K. Sec Hersh, R. E.

Fisher, H. C., and Richardson Co., preparation of pulps containing hard binder substances, (P.), B., 981. [Plastie] fibrous composition, (P.), B., 1219.

Fisher, H. F., and Petroleum Rectifying Co. of California, continuous contactdehydration process [for petroleum emulsions], (P.), B., 735.

and Union Oil Co. of California, electrical dehydrator [for petroleum emulsions], (P.), B., 1190.

Fisher, H. L., and Schubert, Y., hard rubber; its carbon and hydrogen content,

Fisher, H. W. See Standard Oil Development Co.

Fisher, K. C. Sco Irving, L.

Fisher, K. E. See Ravitz, S. F.

Fisher, L. W., minerals in Bates limestone, Lewiston, Maine, A., 1356.

Fisher, P. E. See Imperial Chem. In-

Fisher, P. K., Wichtner, J. H., and Commercial Milling Co., machine for maintaining constant moisture content in a granular material, (P.), B., 673.

Fisher, R. A., and Thomas, R. P., determination of the forms of inorganic phosphorus in soils, B., 658.

Fisher, R. E., and Cori, G. T., hexoso monophosphate changes in muscle in relation to rate of stimulation and work performed, A., 236.

and Pencharz, R. I., carbohydrate oxidation in hypophysectomised rats, A.,

See also Cori, C. F.Fisher, S. J. M. See Parkes, G. D.Fisher Scientific Co. See Matuszak, M. P.Fishman, J. B., and White, A., availability of dl-amino-N-mothylhistidine for growth, A., 509.

Fishnich, O., influence of β -indolylacetic acid on leaf movement and formation

of adventitious roots in Coleus, A., 1164. Fishwick, V. C. Soe Vickers, V. R. S. Fisk, C. F., and Noyes, W. A., jun., photochemical studies. XXIV. Photochemical chlorination of dichlorobenzenes, A.,

Fisk, J. B., scattering of slow electrons by

diatomic molecules, A., 263.

Fiske, A. H., Bryan, Charles S., and Rumford Chem. Works, pyrophosphates, (P.), B., 368. Pure phosphorus, (P.), B., 369. [Alkali] thiotetraphosphates, (P.), B., 987. thiotetraphosphates, (P.), B., 987. [alkali] tetraphosphates, (P.), B., 1091.

Colby, B. W., Lewis, G. B., and Rumford Chem. Works, multi-use batter product, (P.), B., 570.

Fiske, C. H. See Subbarow, Y. Fiskina, R. See Berlin, L.

Fissmer, E. See Bünger, H. Fiszel, H. See Wierzuchowski, M.

Fitch, C. P. Sco Eckles, C. H.

Fitch, H. M. See Small, L. Fitch, R. H. See Voegtlin, C.

Fitch, W. H., furnace installations and recuperators, (P.), B., 175. Furnaco installations, (P.), B., 175. Recuperators, (P.), B., 175.

Fitelson, J., colorimetric detection of teaseed oil in olive oil, B., 1053.

Fitz, F., and Bruger, M., effect of glucose ingestion on the cholesterol fractions of blood, A., 496.

Fitz, W., and Daniels, Joseph, coking of coals, (P.), B., 628.

See also Koppers Co. of Delaware. Fitzgibbon, M., and Lunevale Products, sodium arsenite and compositions for insecticidal or fungicidal purposes con-

taining it, (P.), B., 453. Fitzpatrick, J. C. See Rhodes, E. O.

Fix, E. L., Dennison, B. J., and Duplate Corp., laminated glass, (P.), B., 545,

Zola, J. C., and Duplate Corp., laminated glass, (P.), B., 455. See also Sherts, J.H.

Fjäder, T. See Toivonen, N. J.

Flack, F. C., moulded [concrete] articles, (P.), B., 63.

Flack, N. See Low Temperature Carbonisation, Ltd.

Flan, O. P., processing [dyeing and finishing] of velvet for autocar upholstery in shades fast to light and rubbing, B., 98.

Flanigan, G. E., Supplee, G. C., and Borden Co., soluble lactalbumin, (P.), B., 1176. See also Ansbacher, S., and Supplee, G. C.

Flannery, J. IV., refined metal, (P.), B., 329.

Flasch, H. Soo Ebert, F.

Flaschenträger, B., and Bernhard, K., fat metabolism. XVI. Biological degradation of fatty acids, esters, and fats to dicarboxylic acids. XVII. Biological degradation of hydrogen esters. I. Metabolism of ethyl hydrogen sebacate in dogs, A., 510, 886. β -Oxidation and ω -oxidation, A., 704.

and Faber, P., mixing arrangement for large quantities in the laboratory, A., 447. Flate, D. M., selection of materials used in

millboard factories, B., 1035.

Flatt, R., and Vogt, X., determination of chromium in titanium oxide, A., 44. Flatter, M., determination of the fatty acids

in monoaminophosphatides, A., 623. See also Lobstein, $J.\ \hat{E}.$

Flaxman, M. T., and Union Oil Co. of California, liquid polishing wax, (P.), B., 750.

Fleck, H. R., and Ward, A. M., determination of elemental sulphur in sulphur ointment, B., 251.

Flegler, E., and Raether, H., investigation of electrical discharges in gases with the

cloud chamber, A., 770. Fleisch, A., regulation of tissue-nourishing blood-circulation by carbonic acid and

cholates, A., 1020. leischer, A., and Kalunite Co., apparatus for manufacture of basic alum, (P.), B.,

593. Alumina hydrate, (P.), B., 642. Fleischer, F. See Serger, \hat{H} . Fleischer, G. See Butenandt, A.

Fleischer, J., and Frigidaire Corp., congealing solution [for refrigerators], (P.), B., 2. Brine solution [for refrigerators], (P.), B., 368.

Fleischer, M., formula of aenigmatite, A., 1483.

Fleischmann, R., excitation of secondary γ-rays by neutrons. I. General; phenomena in paraffin. II. Measurements with iron, copper, cadmium, and lead. Appendix: recoil radiation of slow neutrons, A., 6, 918. Production of secondary y-rays by noutrons, A., 131. Quantum energy of nuclear γ-rays, A., 264. Energy differences on addition of neutrons, A., 1440.

and Gentner, W., variation of wave-length and the nuclear photo-effect of beryllium, A., 919.

See also Wülfing, J. A.

Fleischmann, W., metabolism of injured tissue, A., 367.

and Kann, S., specificity of the oviduct test for follicular hormone, A., 902. Effect of testosterone on growth of the comb in Triton cristatus, A., 1564.

Fleisher, W. L., cooling bread, (P.), B., 857.

Fleishman, L. E., and Korolkov, S. I., return of molasses to the diffusion battery, B., 388.

Flemberg, H. See Bäcklin, E. Fleming, A. H. See Claassen, A. Fleming, C. L., jun. See Connor, R.

Fleming, E. P., Palmer, S. L., and Amer. Smelting & Refining Co., treatment of molten metal, (P.), B., 375.

Fleming, R. H. See Moberg, E. G., and

Revelle, R. Fleming, S. H., jun., detection and determination of isopropyl alcohol [in ethyl

alcohol], B., 404.

Fleming, W. E., and Baker, F. E., effectiveness of various arsenicals in destroying larvæ of the Japanese beetle in Sassafras sandy loam, B., 807. Parisgreen and its liomologues as insecticides against the Japanese beetle, B., 1171. Derris as a Japanese beetle repellent and insecticide, B., 1172.

Flesch, W. See Kautsky, H.
Fletcher, C. J. M., thermal decomposition of ethylene oxide and an induced acetaldehyde decomposition, A.,

Fletcher, C. L. See Eastman Kodak Co. Fletcher, J., and Plastergon Wall Board Co., fire-resisting article [wall-board], (P.), B., 597.

Fletcher, J. E., corrosion-resisting properties of ferrous materials used in gas-pipe manufacture, B., 1210.

Fletcher Works, Inc. See Schaum, F.

Flett, J. S. See Wilson, G. V.

Flett, L. H., detergent, wetting, emulsifying, penetrating, and similar agents, (P.), B., 974.

See also Nat. Aniline & Chem. Co. Fleurent, E., physico-chemical study of bread-making, B., 809.

Fleurent, S. See Delphaut, J.

Fleury, P., action of molybdic acid on lævorotatory a-glycerophosphoric acid,

and Bon-Bernatets, (Mile.) G., action of periodic acid on tartaric acid, A., 314.

Flexner, S., active immunisation in poliomyelitis, A., 249.

Flexser, L. A., Hammett, L. P., and Dingwall, A., determination of ionisation by ultra-violet spectrophotometry: its validity and application to measurement of strength of very weak bases, A., 9. Flint, E. P. See Swenson, J. A.

Flint, H. T., limit to the quantum theory and avoidance of negative energy transi-

tions, A., 404.

Flint, W. P., Hockenyos, G. L., and Monsanto Chem. Co., insecticide composition [for eradication of earth-worms], (P.), B., 342.

Flister, E., physical nature of bituminous road materials: cementing power deter-

minations, B., 372.

Flock, E., effect of autolysis on phosphate compounds in the liver of dogs, A., 1299.

Bollman, J. L., and Mann, F. C., effect of diet on phosphate compounds in the liver of dogs, A., 1289. Effect of certain substances on phosphate compounds in the liver of dogs, A., 1295.

Flocke, F. G., and Schoener, J. G., electric welding of monel and nickel, B., 1210.

Flohr, E. See Reihlen, H.

Flood, A. See Schmidt-Nielsen, Sigval. Flood, B. F., fire prevention and protection in chemical industries, B., 79.

Flood, C., and West, R., properties of Castle's intrinsic factor, A., 1405.

Flood, H., titration errors due to formation of mixed crystals in potentiometric analysis, A., 1478.

and Bruun, B., titration errors in potentiometric determination of bromide and chloride in mixtures, A., 1478.

and Tronstad, L., formation of drops in supersaturated D₂O vapour; surface tension of D₂O, A., 557.

Flood, J. C. See Conway, E. J.

Flood, W. H., bituminous paving mixture, (P.), B., 992.

Floor Covering Patents, Inc. See Turkington, V. H.

Florence, G., and Vincent, D., rotary dialyser of large capacity, A., 1225. See also Drilhon, A.

Florence, R. T., Myers, R. J., and Harkins, W. D., contact potentials of reversible soluble films of lauric acid, A., 1335.

Florentin, D., and Munsch, detection of antiseptics containing bromine in foodstuffs, especially in wine and grape and fruit juices, B., 470.

and Ruiz, (Mme.) I., characterisation and determination of tri(hydroxyethyl)amine, A., 828.

Florian, E. See Kaunert, P.

Floriani, L., phytosterol and resin of Fabiana denudata, Miers, A., 533.

Florida Cane Products Corporation, maturing and ageing of raw alcoholic liquors, (P.), B., 215.

Florida Fruit Canners, Inc. See Keenan,

Floridin Co. See Meade, J. E. Florkin, M., "urea surcharge" (Delaunay) of erythrocytes of Sipunculus: distribution of urea between erythrocytes and plasma in the colomic liquids charged with erythrocytes, A., 354. Anhydrase activity in invertebrates,

and Bosson, G., blood- and urinary nitrogen of a lamellibranch mollusc (Anodonta cygnea), A., 356. Bloodsugar of anodonts, A., 746.

Flory, P. J., predissociation of the oxygen molecule, A., 261. Molecular size distribution in linear condensation polymerides, A., 1452.

and Johnston, H. L., photochemical decomposition of nitric oxide, A., 170.

Flosdorf, E. W., Chambers, L. A., and Malisoff, W. M., sonic activation in chemical systems: oxidations at audible frequencies, A., 1077.

and Henry, C., systematic qualitative analysis of anions, A., 949.

See also Chambers, \hat{L} . \hat{A} .

Flotow, E., and Nauenburg, G., determination of alcohol by Widmark's method,

Flowers, A. E., and De Laval Separator Co., centrifuge tube [flask], (P.), B., 529.

Flowers, J. W., initiation of electrical discharges by field emission, A., 128. Flügge, R. See Kangro, W.

Fluevog, E. A. See Upson, F. W. Fluhmann, C. F., estrin-deprivation theory of menstruation, A., 1564.

Fluke, C. L., Dunn, E. P., and Richter, P. O., sodium silicate incorporated with lead arsenate in the last regular spray as an aid to residue removal, B., 1117.

Flury, F., action of gases issuing from firedamp pockets, A., 1549.

and Neumann, Wilhelm, folinerin, a new cardiac drug from leaves of Nerii oleander, A., 1294.

Flusin, G., present state of electric furnace industries, B., 891.

Flynn, D. G., and Robertson, A., hydroxycarbonyl compounds. X. Coumarins and chromones from m-4-xylenol, A., 479. Flynn, E. J., Stutz, G. F. A., Schertzinger, C. B., and New Jersey Zinc Co., lithopone

manufacture, (P.), B., 801. Fock, V., hydrogen atom, A., 266.

and Petrashen, (Miss) M., analytical beryllium-like wave-functions for beryllium-like atoms, A., 543. Calculation of the self-consistent field with exchange for lithium, A., 7.

Focke, A. B., and Hill, J. R., electrical resistivity of bismuth single crystals, A., 1056.

See also Goetz, A.

Focke, R., flow of viscose solutions through rectangular channels of small section, B., 93. Use of artificial silk waste in the textile industry, B., 93. Simple tests of textiles without the aid of the microscope or special apparatus, B., 93.

Fodor, A., and Kuk, S., relation between chemical and colloidal structure of proteins, A., 287.

Fodor, G., and Allen & Co., Ltd., E., bodies containing metallic carbide, (P.), B., 1049.

Foëx, G., and Fehrenbach, C., variations of the magnetic moment of the cobalt ion in the anhydrous chloride and in the mixed crystal systems CoCl2-CdCl2 and CoCl2-MnCl2, A., 1190.

Foëx, M. A., separation by decantation of liquid layers in molten boro-alkaline-

earth glasses, B., 694.

Földes, F., simple valveless apparatus for determination of gaseous metabolism in man, A., 354. Histidine in human urine, A., 362, 881.

Földi, Z., and Kereszty & Wolf, cyclical disubstituted [1:5-polymethylene]tetrazoles, (P.), B., 1198.

Földvári, A., action of clay stabilisers, A.,

Fölmer, J. See Engl, J. Foelsch, H., ferrocerium, B., 322.

Fölsche, T., mechanical nuclear moment of cæsium, A., 916. Foering, L. See Owen, B. B. Foerster, F., and Sahr, E. von, desulphuris-

ation of coal gas, B., 131.

and Scheil, E., acoustic investigation of formation of martensite needles, B., 1156.

See also Eucken, A.

Förster, G. Sec Conrad-Billroth, H. Foerster, H. R. See Parade, G. W.

Förster, M., range of a-particles and chemical linking, A., 1440.

Förster, T., determination of linear crystallisation velocity, A., 297.

Foex, E., and Burgevin, H., effect of boron

on heart-rot of sugar beet, B., 1061. Fogarty, J. A. See Child, A. M. Fogg, H. C., and Hess, Lewis, separation of

yttrium from the yttrium earths, A.,

Fogle, M. E., application of the "photocoli to chemical processes, B., 506.

Foglia, V. G., and Fernandez, R., direct action of glucose on secretion of insulin by the pancreas, A., 386.

Foige, K., spectral sensitograph for recording colour-sensitivity curves of photographic coatings, B., 909.

Fokina, E. A. See Neumann, R. S., and Schemjakin, F. M.

Fol, J. G., applications of [rubber] latex, B., 1220.

Foley, F. B., slag control in acid open-hearth steel, B., 410. Shallow hardening [of steels], B., 838.

Foley, G. H. See Sullivan, B.

Foley, J. O., counterstains for Davenport reduced silver preparations of peripheral nerves, A., 535.

Folger, R. C. See Scheidt, A. W. Folgner, R. See Schneider, G. Folkers, K., pyrimidines. CLII. Hydrogenation and hydrogenolysis of [ethyl] 2-keto-[4-phenyl-6-methyl]-1:2:3:4tetrahydropyrimidine[-5-carboxylate] to β -benzyl- and β -hexahydrobenzyl-nbutyl alcohol, A., 1391. Preparation of apocodeine and its hydrochloride, A., 1395.

See also Ladenburg, K.

Follett, D. H., photometric method suitable

for spectrum analysis, A., 955. and Crawshaw, J. D., production of cosmic-ray showers at a considerable depth below ground-level, A., 265. Cosmic ray measurements under 30 m. of clay, A., 1174.

Follett-Smith, R. R., uptake of minerals by pineapple plants at different stages of growth, B., 1115.

See also Williams, C. H. B.

Folley, S. J., effect of estrogenic hormones on lactation in the cow, A., 901.

and Kay, H. D., variations in phosphomonoesterase content of milk in relation to lactation, A., 1299.

and White, Paul, effect of thyroxine on milk secretion and on blood- and milkphosphatase of the lactating cow, A., 1013.

Follis, R. G. See Standard Oil Co. of California.

Folsche, O. See Haarmann, W. Fomenko, L. A. See Nersesov, L. D. Fomenko, M. M. See Mischtschenko, Fomin, J. N., flotation of coal sludge and coal dust, B., 49.

Fomin, S. V., origin of trimethylamine in human and animal urine, A., 1537.

and Demin, V. I., replacement of protein [in cattle rations] by ammonium salts,

and Gerschenovitsch, S. S., biological value of albumin of beans and of casein and myosin of muscles, B., 393.

and Romantschuk, N. M., proteases and proteolytic processes in musclo tissue. III. Activity of muscle proteases in B- and C-avitaminosis, A., 1557.

and Strajesko, D. N., physicochemical processes in nerve tissue. I. Oxidation-reduction potential in rabbit brain during strychnine and cocaine poisoning, A., 1553.

Fomin, V., Houtermans, F. G., Kurtschatov, I. V., Leipunski, A. I., Schubnikov, L. V., and Schtschepkin, G., absorption of thermal neutrons in silver at low temperatures, A., 1314.

Houtermans, F. G., Leipunski, A. I., Rusinov, L. B., and Schubnikov, L. V., neutron absorption of boron and cadmium at low temperatures, A., 1314.

Fomin, V. A., application of the xanthic reaction to dehydration of di-tertiary a-glycols, A., 187. Chlorination of sulphur by action of carbon tetrachloride in presence of certain catalysts, A., 1202. Fonda, G. R. See Gen. Electric Co.

Fonda, J. S. See Hyden, W. L. Fonrobert, E., "artificial resin-" and "synthetic-" varnishes; confusion of nomenclature, B., 462. Tung oil as raw material for varnishes and synthetic resins, B., 607.

Lemmer, F., and Resinous Products & Chem. Co., phenolic condensation products, (P.), B., 110.

and Münchmeyer, A., analysis of "EL boiled oil," B., 893.

and Wilborn, F., weathering tests on clear [oil] varnishes, B., 160.

Fontaine, M., and Raffy, A., spectrochemical study of aplysiopurpurin, A., 503. Fontana, A. See Forestal Land Timber &

Railways Co.

Fontana, M. G., and Chipman, J., equilibrium in reaction of hydrogen with ferrous oxido in liquid iron at 1600°, A., 1070.

See also Chipman, J.

Fontes, G., water impermeable to alcohol, A., 748.

Bruner, J., and Lindenberg, A., coefficient K of Nicloux in the gudgeon living in glucose solutions, A., 507. Respective variations of weight, water, and constituents of dry weight in the gudgeon as functions of external glucoso concentration, A., 507. Variations of the Nicloux coefficient K in normal, hydrated, and dehydrated

Gobio fluviatilis, A., 748.
Lindenberg, A., and Gross, R., determination of ethyl alcohol in Carassius

auratus, A., 748. Fonteyn, M. See Mertens, Eug.

Fonteyne, R. See Jaeger, F. M., and Prins, J. A.

Food Machinery Corporation. See Sharma,

Foord, S. G., and Norrish, R. G. W., sensitised explosions. I. Hydrogen-oxygen reaction catalysed by nitrogen peroxide, A., 34.

Foote, F. See Jette, E. R. Foote, H. W., and Bradley, W. M., partial solubility isotherm of the system $\mathrm{NH_3-MoO_3-H_2O}$ at 25°, A., 937. and Vance, J. E., determination of copper

in presence of interfering elements; modified iodometric method, A., 579.

Footner, H. B., paint in the petroleum industry, B., 509.

Forbes, A. L., jun., and Byrne, C. O., apparatus for reactivating a treating agent, (P.), B., 674.

Forbes, E. B., mineral requirements of milk production; annual cycle of mineral and nitrogen metabolism of the milch cow as affected by lucerne hay, timothy hay, bone flour, and ground limestone, A., 104.

Swift, R. W., Black, A., and Kahlenburg, O. J., utilisation of energy-producing nutriment and protein as affected by individual nutrient deficiencies. III. Effects of plane of protein intake, A.,

Forbes, G. S., and Nelson, A. F., photoiodination of ethylenic linking at low temperatures, A., 310.

See also Heidt, L.J.

Forbes, H. S. Soc Behnke, A. R. Forbes, J. C., and Neale, R. C., indoluria,

Forbes, J. E., and Müller, Hans, dielectric properties of Rochelle salt, A., 17. Forbes, L.J.B. See Pilkington Bros.

Forbes, R. J., lump of asphalt from Ur, B., 727. Bitumen in the paint industry, B., 1055.

Forbes, W. H., and Andreen-Svedberg, A., reduction of alkalino copper reagents by

glucose, A., 573.
Forbes, W. M., and Mack, P. B., effect of tin-weighting on strength of new silk, B., 367. Effects of light and air on unweighted and tin-weighted silk, B., 367.

Ford, C. W., hot-weather processing [in X-ray photography], B., 909.

Ford, \tilde{F} . \tilde{J} . See Morris, N.

Ford, J. G. See Westinghouse Electric & Manufg. Co. Ford, J. H., boiler feed-water treatment,

B., 815.

Ford, J. H. (Illinois), Thompson, C. D., and Marvel, C. S., rearrangements of polyin-VII. Fermation of allenes, A., enes.

Ford, J. W., and Bruninga, J. H., treatment of cast-iron castings, (P.), B., 280. Ford, T. C., and Amer. Asphalt Paint Co., [bituminous] metallic paint, (P.), B., 109.

Ford, T. F., surface spreading and surface solution of positively adsorbed substances, A., 1196. Non-solvents in

rubber cements, B., 1113.
and Goodrich Co., B. F., plastic rubber derivative, (P.), B., 1221.
and McBain, J. IV., direct measurement

of absolute amount of adsorption in liquid surfaces, A., 423.

See also McBain, J. W., Semon, W. L., and Wilson, D. A.

Ford, W. G. K. See Burkhardt, G. N.

Ford Motor Co., Ltd., drying of enamel or similar coatings, (P.), B., 943. [Cast-iron] alloys, (P.), B., 1101. See also Laird, J. S.

Forde, T. H., and Diascope Corp., electricfurnace muffle, (P.), B., 282. Electric furnace, (P.), B., 699.

Fordham, S. See Aylmer, A. E., and Finch, G. I.

Fordham, W.F. See Ribbans, S.H. Fordyce, C.R. See Eastman Kodak Co., and Kodak, Ltd.

Fordyce, R. See Seyer, W. F.

Forestal Land, Timber & Railways Co., Ltd., Fontana, A., Phillips, R. O., and Terrell, J. T., leather-tanning processes, (P.), B., 383.

Foresti, B., apparatus for catalytic microhydrogenation in liquid medium, A., 956. Structure of the electric double layer of platinised platinum and velocity of hydrogenation of benzene in a liquid medium, A., 1347. Relation between activity of hydrogen ions of the medium and velocity of hydrogenation of benzene and of oxygen in a liquid medium and in presence of platinum, A., 1347. See also Chistoni, A.

Foret, (Mlle.) J., synthesis of hydrated monocalcium silicates under pressure, A., 1079.

Forgács, T., cryoscopy in examination of milk, B., 664.

Forjaz, A. de P., action of electromagnetic waves on enzyme systems, A., 377.

Forman, M. See Daniels, A. L.

Formanek, J., influence of addition of benzeno to alcohol-benzine mixtures on efficiency of motors and on use of such mixtures, B., 532.

Formica Insulation Co., heat-dissipating laminated products, (P.), B., 223. See also Cochrane, J. D., jun.

Formstecher, F., effect of uniform auxiliary exposure on the characteristic curve, B., 220. Optimum [photographic] development, B., 220. Measurement of printing range, B., 813. History and theory of selenium toning, B., 1131.

Fornét, E., enol-phenylacetaldehyde monoacetate; its preparation and applic-

ations, B., 570.

Fornét, R., peppermint oil from Mitcham plants cultivated in Southern Sweden, B., 571. Hydroxycitronellal and its dimethyl and diethyl acetal in perfumery,

Fornwalt, H. J. See Jones, G.

Forny, A., mechanical hot-galvanising, B., 840.

Forrer, R., two coexistent electronic lattices in iron and alloys of the β -brass type; m.-p. law, A., 928. Carrier electrons in superconduction, A., 1056.

Forrest, G. See Gough, H. J.

Forrest, T. W. W., and Sun-Maid Raisin Growers of California, coating of fruit, (P.), B., 395.

Forrester, C., Barakar coals of the Jharia coalfield, Bihar and Orissa, India, B., 4. Forrester, D. M., treatment of the Colorado

river water, B., 766. Forrester, J. H. See Standard Oil Co. of Indiana.

Forrester, P. C., and Forrester-Largilliere Eng. & Milling Co., pulveriser, (P.), B.,

Forrester, R. A. See Coleman, G. H.

Forrester-Largilliere Engineering & Milling Co. See Forrester, P. C.

Forret-Jaggi, R. C., and Mines Domaniales de Potasse d'Alsace, apparatus for electromagnetic separation of materials, (P.), B., 157.

Forró, M. See Barnóthy, J.

Forsee, W. T., jun., and Pollard, C. B., piperazine. VIII. Condensation with aldehydes, A., 344.

Forsén, L., special cements, B., 148. Chemistry of Portland cement. II. and IV., B., 193, 372.

Forst, A. C., surfacing of electrodes for electric-discharge tubes, (P.), B., 699.

Forster, H. See Mohler, H.

Forster, S., influence of ergotamine on thermal regulation in the organism, A.,

Forster, T. A., Neolan colours on wool, B., 231.

Forstmann, W., determination of filter factors and sensitivity differences by practical exposures with the stereocamera, B., 395.

Forstner, G. E., wrapping of food, B., 1015. Forstner, H. M., silver coatings and their application in chemical plant manufacture, B., 1100.

Forsyth, R. P., direct method of stainlesssteel production, B., 887.

Fort, C. A., and McKaig, N., jun., apparent and true solids of sugar-cane juice; relation of difference to ash content, B., 1172.

See also McKaig, N., jun.

Fort Orange Paper Co. See Wolfe, H. J. Fortier, A., arrangement for measuring

viscosity of gases, A., 447.
Fortier, F. R., apparatus for effecting clarification of liquids, (P.), B., 962.

Fortunatov, M. S., electrolysis of aluminosilicates, A., 1076.

Fortunatov, N. S. See Plotnikov, V. A. Forty, A. G., and Sargent's Sons Corp., C. G., dryer, (P.), B., 255.

Forward, C. B., and Forward Process Co., cracking of hydrocarbons, (P.), B., 358.

Forward Process Co. See Forward, C. B. Foschini, A., and Rossi, B., analyses of mineral water of Marano Equo [Italy], A., 1226.

Fosdick, L. S., and Hansen, H. L., carbohydrate degradation in relation to dental caries, A., 1407.

See also Zaus, E. A.

Foshag, W. F., ganophyllite and zincian amphibole from Franklin Furnace, New Jersey, A., 585.

and Woodford, A. O., bentonitic magnesian clay mineral from California, A.,

Foshay, L. See Foulger, J. H.

Foss, A., and Norsk Hydro-Elektrisk Kvaelstof, A./S., treatment of crude phosphates, (P.), B., 318.

Fosse, R., formation of hydrogen cyanide and formaldehyde by oxidation of organic substances, A., 707.

and De Graeve, P., synthesis of cyanamide by oxidation of formaldehyde and ammonia, A., 597.

De Graeve, P., and Thomas, P. E. synthesis of cyanic acid by action of carbonyl chloride on ammonia, A., 946.

Foster, A. G., discontinuities in the sorption process, A., 1458.

Foster, C. L. See Chesterman, D. R. Foster, E. O. See Smith, H. V.

Foster, E. S., jun. See Miller, R. D. Foster, E. W. See Jones, E. G.

Foster, G. H., and Amer. Cyanamid Co., acetic acid, (P.), B., 684.

Foster, G. L., Palmer, W. W., and Leland, J. P., calorigenic potencies of l- and dl-thyroxine and thyroid gland; thyroxine content of the acid-soluble fraction of the peptic digest of thyroid protein, A., 1426.

Foster, H. [with Gardner, J. H.], anthracene. X. Preparation and hydrolysis of polyhydroxyanthraquinoneglucosides, A., 728.

Foster, H. D., and Nat. Fireproofing Corp., cellular clay products, (P.), B., 277.

Foster, J. P., cellulose fibres, (P.), B., 880. Foster, J. S., interpretation of anomalous Stark intensities, A., 1167. Large quartz spectrograph for examination of biological material, A., 1480.

Langstroth, G. O., and McRae, D. R., quantitative spectrographic analysis of biological material. I. Determination of lead in cerebrospinal fluid, A., 536. and Snell, A. H., Stark effect in the hydrogen isotopes, A., 1167.

Foster, R., and Waldorf, S. K., luminescent electrical-discharge device, (P.), B., 27.

Foster, R. L. See Fulmer, E. I.
Foster, W., applications of chemistry to

archeology, A., 306. Foster, W. H., sewage-filtering apparatus, (P.), B., 670.

Foster Wheeler Corporation. See Sieder, E. N., and Wallis, J. S.

Foster Wheeler, Ltd., fractional distillation, (P.), B., 578.

Fotofrost, Inc. See Hunsaker, C. H.

Fouassier, M., pasteurisation of milk in relation to public health and the milk industry, B., 567. Foulds, R. P. See Tootal Broadhurst Lee

Co.

Foulger, J. H., spectrophotometric determination of ethylene glycol dinitrate, A., 453.

and Foshay, L., antiseptic and bactericidal action of urea, A., 1424.

Foulk, C. W., suspended solids in foaming and priming of boiler water, B., 575.

and Brill, H. C., solid matter in boilerwater foaming. III. Effect of calcium carbonate and magnesium hydroxide precipitated inside the boiler, B., 127.

and Caldwell, J. R., determination of sodium chloride in salt, B., 232.

Foulke, C. D. See Raven, F. A.

Foulke, T. E., and Gen. Electric Vapor Lamp Co., electric gaseous-discharge devices [neon tubes], (P.), B., 240. Foulon, A., rust inhibition with activated

charcoal pigments, B., 1005.

Foulon, F., acid pumps in the explosives industry, B., 1181.

Foulton, S., dyeing and finishing of corset fabric, B., 188.
Fourment, P., and Roques, H., reaction of

lignin and vanillin, A., 1515.

Fourneau, E., Tréfouël, J., Tréfouël, (Mme.) J., Nitti, F., and Bovet, D., action of p-aminophenylsulphamide on moulds, A., 1027. Chemotherapy of streptococcal infections by derivatives of p-aminophenylsulphonamide, A., 1029.

Fournier, H., protection of magnesium by selenium coatings, B., 550. Application of microchemical analysis to corrosion of light aluminium alloys, B., 794.

Fournier, J., apparatus for filtering gases, (P.), B., 912.

See also Bach, D.

Fournier, P., system iron-antimony, A., 1455.

Fouts, O. See Adel, A.

Fouts, P. J., Helmer, O. M., and Zerfas, L. G., gastro-intestinal studies. V. Gastric juice in anæmias other than pernicious anæmia, A., 1536.

Fowle, F. E., ozone measurements and the possible connexion of ozone with the sunspot cycle, A., 583.

Fowle, F. F., Crapo, F. M., and Indiana Steel & Wire Co., overhead electric-transmission lines, (P.), B., 1001. Fowler, C. H. See Wildman, H. G.

Fowler, E. D. See Lewis, R. D.

Fowler, G. J., separation of solids from liquids, (P.), B., 961.

Fowler, J. J., dryer, (P.), B., 1072. Fowler, M. G. See Ralston, O. C.

Fowler, R. H., Mott's theory of liquid metals, and transition points of metals and other solids, A., 416. Adsorption isotherms, A., 421.

Fowler, R. M., and Bright, H. A., standardisation of permanganate solutions with sodium oxalate, A., 304.

Fowler, W. A., Delsasso, L. A., and Lauritsen, C. C., radioactive elements of low atomic number, A., 659.

See also Crane, H. R., and Delsasso, L. A.

Fox, A. C. See Munro, J. A. Fox, A. L. See Du Pont de Nemours & Co., E. I.

Fox, C. A. See Whitehead, R. W. Fox, C. R. See Fox, R. W. H.

Fox, C. S., crystalline nature of the chief constituent of ordinary coal, B., 579.

Fox, D. L., enzymic reactions in heavy water, A., 377.

Cupp, \vec{E} . \vec{E} ., and McEwen, G. F., low concentrations of deuterium oxide and growth of marine diatoms, A., 1559. Sec also Sumner, F. B.

Fox, D. P. S. See Worssam & Son, Ltd., G.J.

Fox, F. W., and Levy, L. F., antiscorbutic activity of dehydroascorbic acid: its storage and that of ascorbic acid by tho guinea-pig at different levels of intake, A., 390. Reversible oxidation of ascorbic acid by norite charcoal, A., 390.

Fox, H. M., metabolism of cold-blooded animals in different latitudes, A.,

884.

and Baldes, E. J., vapour pressure of blood of arthropods from swift and

still waters, A., 354.
Fox, M., and Rabi, I. I., nuclear moments of lithium, potassium, and sodium, A., 1.

See also Millman, S.

Fox, R. W. H., and Fox, C. R., treatment of marble surfaces, (P.), B., 886, 1096.

Fox, S. W., preparation of methionine-free natural leucine, A., 1368.

See also Huffman, H. M.

Foxboro Co., apparatus for measuring the thickness, moisture content, or other characteristics of materials, (P.), B., 508.

See also Lewis, S. R.

Foxwell, G. E., elimination of sulphur from coke, B., 131. Steam generation in chemical works, B., 431. Problems of the coke-oven industry, B., 772. Use of peat in gas manufacture, B., 965.

Foy, H., and Kondi, A., spectrophotometric determination of blood-cholesterol by means of silica, A., 496.

Foz, O. R. See Palacios, J.

Fraas, F., and Partridge, E. P., potash from polyhalite by reduction process, B., 317, 1090.

See also Partridge, E. P. Fraddà, G. See Cannavo, L.

Fraenckel, V. H., pyrex glass seals, A., 1481.

Fraenkel, G., utilisation of sugars and polyhydric alcohols by the adult blowfly, A., 511.

Fraenkel-Conrat, H.L. See Barger, G.Fränkl, M., and Amer. Oxythermic Corp., blast furnace, (P.), B., 601. Resolution of gaseous mixtures, (P.), B., 723.

Fraga-Padin, M. de la E. Seo Parga-Pondal, I.

Fragen, N., and Badger, W. L., heat-transfer coefficients in vertical-tube forced-circulation ovaporators, B., 672.

Frajberger-Grynberg, S. Sec Przylecki, S.J. von.

Frampton, V. L. Seo Bull, H. B.

France, G. D. Sco Ward, A. F. H. France, W. G., and Davis, (Miss) P. P., adsorption at crystal-solution interfaces. IX. Concentration of foreign substances in solution relative to quantity adsorbed by the host crystal, A., 422.

See also Davis, (Miss) P. P.

Francesconi, L., and Bruna, R., action of Lurisia waters on uric acid and on uric urinary calculi, A., 632.

Franche, M. Sco Slatineanu, A. Franchetti, P. Sce Suida, H. Franchetti, S., the liquid state and inter-

atomic forces. I. and II., A., 667.

Franchi, G. See Martini, E.

Francioli, M., chemistry of the tubercle bacillus: lipin compounds, A., 525.

Francis, C. S., jun., and Celanese Corp. of America, incandescence [gas] mantles, (P.), B., 269.

Francis, F., and Collins, F. J. E., determination of m.p. of organic substances, A., 352.

Francis, V. J. See Gen. Electric Co. Francis, W. B., spinning sheet metals, B., 414.

Francis-Carter, C. F. J., specifications for cathodic coatings, with special reference to nickel and chromium on steel, B., 151.

Francisco, K. N., and Amer. Cyanamid Co., [urea-formaldehyde] moulding position, (P.), B., 1110.

Franck, C. See Merklen, L., and Santenoise, D.

Franck, J., and Wood, R. W., fluorescence of chlorophyll in its relation to photochemical processes in plants and organic

solutions, A., 1320.
Franck, H. H., systemisation of chemical technology, B., 47. Standardisation of chemical apparatus, B., 769.

and Reichardt, H., proof of existence of free NH (imine) in thermal decomposition of ammonia, A., 575.

Franck, R. See Valentin, H.

Franckenstein, G., direct-voltage experiments with electrolytically produced aluminium oxide, A., 666.

Franco-Belge d'Ougrée. Sec Leroux, A. Franco Wyoming Oil Co., froth-flotation concentration of copper sulphides, (P.), B., 1038.

François, F., system antimony iodidesodium iodide-water, A., 290.

and Delwaulle, M. L., preparation of bismuth iodosulphide by the wet method, A., 440. Systems antimony (or bismuth) iodide-alkali iodidewater, A., 682.

François, M., and Seguin, L., determination of lead and iodine in officinal lead iodide, B., 1127.

Françon, J., formaldehyde [from carbon monoxide and hydrogen], (P.), B., 973.

Frangopol, C., microchemical detection of metal ions with picric acid, A., 951.

Frank, A. (Stuttgart). See Maiwald, K. Frank, A. (Würzburg). See Clusius, K. Frank, (Miss) Amelia, effect of crystalline

fields on the magnetic susceptibilities of Sm+++ and Eu+++, and the heat capacity of Sm+++, A., 19.

Frank, A. R. See Caro, N. Frank, D. See Cimerman, C.

Frank, F. C., dipole induction and solvent effect in dipole moment measurements, A., 150. Electrical evidence on calcite imperfection, A., 665. Energy of formation of "cyclol" molecules, A., 1324. Carbon valency angle and dipole induction in benzyl compounds, A., 1447. Chemical kinetics of dielectric relaxation, A., 1468.

See also Jackson, W. Frank, H. See Salmang, H.

Frank, I. M., photochemical reaction of mercury vapour with oxygen, A., 943.

Frank, J. See Groschev, L. Frank, J. See Marder, M. Frank, K. See Dietz, K.

Frank, L., migration of cæsium on tungstic

oxido, A., 1181. Frank, M. Sco Fehér, D.

Frank, P. E., viscosity of glass in relation to temperature and composition, B., 594.

Frank, R. Sec Necheles, H. Frank, R. H. See Gregg, A. W. Frank, R. T. See Salmon, U. J.

Frank, W. See Wegler, R.

Franke, A., Kroupa, A., and Schmid, O., $\alpha\delta$ - and $\alpha\epsilon$ -oxido-compounds; synthesis of $a\epsilon$ -oxidodecane. A., 52.

Franke, E., general-utility vacuum chamber for X-ray fino structure photographs,

Franke, K., and Litzner, S., life-saving action of ovarian preparations in severe bleeding from hemophilia, A., 634.

Franke, K. W., toxicant occurring naturally in samples of plant food-stuffs. X. Effect of feeding toxic food-stuffs in varying amounts and for different time periods. XI. Effect of feeding toxic and control food-stuffs alternately, A., 106, 518.

Moxon, A. L., Poley, W. E., and Tully, W. C., monstrosities produced by injection of selenium salts into hens'

eggs, A., 1417.

and Painter, E. P., selenium in proteins from toxic food-stuffs. I. Occurrence and nature of selenium present in a number of food-stuffs or their derived products. IV. Effect of feeding toxic proteins or toxic protein hydrolysates with and without removal of selenium, A., 518; B., 344.

and Potter, V. R., toxicant occurring naturally in samples of plant foodstuffs. IX. Toxic effects of orally ingested selenium, A., 105. Ability of rats to discriminate between diets of varying degrees of toxicity, A., 893.

See also Painter, E. P., and Tully, W. C. Franken, H., respiration of carbon dioxide in narcosis and in paralysis of the respiratory centre, A., 354.

Frankena, H. J. See Itallie, T. B. van.

Franklin, D. A. See Laird, E. R. Franklin, G. L. See Rendle, B. J.

Franklin, H. B., electrolytic apparatus, (P.), B., 284.
Franks, F. See Milbourne, S. M.

Franks, R. Sec Becket, F. M., and Electro Metallurg Co.

Franseen, C. C., and McLean, R., phosphatase activity of tissues and plasma in tumours of bone, A., 245.

Fransworth, F. F., corrosion of iron and steel, B., 548.

Franta, W., and Lavine, I., development of Dakota lignite. XI. Influence of catalysts in reaction between lignite-tar distillate and formaldehyde, B., 336.

Frantz, E., incense [eucalyptus inhalant], (P.), B., 526.

Frantz, E. L. See Kreis, J. D. Frantz, T. See Marconnay, A. von B. Franz, E., evaluation of new textile aids in finishing wool, B., 405. Washing agents, (P.), B., 800. Bleaching of textile fibres, yarns, and fabrics, (P.), B., 1089. Bleaching of organic materials, (P.), B., 1089.

See also Kammgarnspinnerei Stöhr & Co.,

Franz, W., Rayleigh scattering of hard radiation by heavy atoms, A., 264.

Frary, F. C., recent advances in the aluminium industry, B., 1099.

Frasch, J. See Tichauer, H.

Fraschiua, C., determination of potash requirements of soils by the Dirks and Scheffer method, B., 209.

Frase, T. F., electrotyping and plating

apparatus, (P.), B., 700. Fraser, A. H. H. See Anderson, E. M. J. Fraser, A. M. See Stehle, R. L.

Fraser, F. H., and Plummer, H. C., neutralising action of two streptococcal antisera, A., 248.

Fraser, G. H., air and other [pneumatic] separators, (P.), B., 82. [Pneumatic] separators, (P.), B., 912.

Fraser, H. J., experimental study of porosity and permeability of clastic sediments, A., 308.

See also Graton, L. C.

Fraser, Hugh J., Owens, R. J., Jenckes, E. K., Lenhart, J. K., and Internat. Nickel Co., drawn article [wire], (P.), B., 1048.

Fraser, J., and Hamer, (Miss) F. M., 1-methylbenzthiazole, A., 740. Prepar-ation of 1-methyl-a-naphthoxazole, A.,

Fraser, O. B. J., and Vanick, J. S., properties of nickel-alloy cast irons and their special application in petroleum-producing equipment, B., 644.

Fraser, R. G. J., Massey, H. S. W., and Mohr, C. B. O., scattering of molecular

rays in gases, A., 130.

Fraser, R. P., controlling flow of fluids of varying viscosity, (P.), B., 1073.

Fraser, T., separation of mixed materials, (P.), B., 528.

Fratkin, R. L. See Girko, P. A.

Frauenknecht, H., carburisation of pig iron, (P.), B., 415.

Frazer, J. C. W., and Albert, C. G., adsorption on chromite catalysts, A., 283.

and Catalyst Research Corp., preparation of [metallic] catalyst for hydrogenation of [vegetable] oils, (P.), B., 416. and Jackson, \tilde{C} . B., nickel-chromic oxide catalysts for hydrogenation of an oil, B., 799.

Frazier, W. C., Johnson, W. T., jun., Evans, F. R., and Ramsdell, G. A., bacteriology of Swiss cheese. III. Relation of acidity of starters and $p_{\rm H}$ of interior of cheeses to quality, B., 345. Frazier, W. H. See Valaer, P.

5

Frear, D. E. H., spray-residue removal in Pennsylvania, B., 761.

and Haley, D. E., rapid determination of lead residues on apples, B., 761.

and Hodgkiss, W. S., accuracy of determinations of lead and arsenic on [sprayed] apples, B., 810. Freche, H. R. See Aluminium, Ltd.

Fréchette, H., laboratory de-airing machine [clay-extrusion press], B., 1041. Fred, E. B. See Tatum, E. L., and Wenck, P. R.

Frederic, W. H. See Fieldner, A. C. Frederick, C. W. See Larmore, N. W. Frederik, G. H. See Ornstein, L. S.

Frederiks, V., modern concept of structure of anisotropic liquids and its foundation, A., 1181.

and Repieva, A., action of the electric field on the smectic mesophase, A., 1449.

and Tzvetkov, V., motions by anisotropic liquids under influence of an electric field, A., 410. Action of the electric field on anisotropic liquids. Motion of the liquid in the electric field. II. Orientation of the liquid in the electric field, A., 1184.

Fredga, A., preparation of carboxylic acids of organic sclenides, A., 825. Seleniumsubstituted amino-acids. I. Synthesis of aa'-diamino - $\beta\beta'$ - diselenodipropionic acid (selenocystine), A., 1096. Selenodicarboxylic acids and diselenodicarboxylic acids, A., 1232.

Fredholm, H., sensitive reaction for potassium, A., 695.

Sce also Electrolux, Ltd.

Fredrickson, W. R. See Humphreys, R. F., and Watson, W. W.

Free, G., sulphur compounds in brown-coal tar, B., 177. Destructive hydrogenation for refining of mineral oils, B., 259. Active sulphur compounds in shale tars, B., 354. Sulphur compounds of petroleum and determination of sulphur in oil, B., 435. Sulphur compounds of coal tar, B., 822. Effect of acid and alkali treatment on the sulphur of mineral oils, B., 1076. See also Winter, H.

Freeborn, S. B. See Regan, W. M. Freed, M., and Wynne, A. M., determination of hydroxyl groups in organic compounds, A., 1132.

Freed, S. C., extraction of both cestrin and gonadotropic hormones from a single blood sample, A., 902.

and Coppock, A., gonadotropic substance from teratoma of the testis, A., 902.

and Hechter, O., extraction of both the gonadotropic and (free or total) œstrogenic hormones from a single urine sample, A., 1563. Mirsky, I. A., and Soskin, S., tungstic

acid precipitation method for extraction of estrogenic substance from urine, A., 229.

Freedericksz. See under Frederiks. Freeland, R. O., effect of transpiration on absorption and distribution of mineral

salts in plants, A., 1569. Freeman, C. F. See Herty, C. H., jun. Freeman, E. H., laboratory equipment, (P.), B., 1185.

Freeman, G. G., and Hopkins, R. H., degradation of starch by amylases. I. Nature of early fission products. II. Kinetics of action of a- and β -amylases on starch, its components and partial degradation products. III. Mutarotation of fission products, A., 637.

Freeman, Harry, effect of certain environmental conditions on skin and body temperatures and rate of oxygen consumption, A., 888. See also Hoskins, R. G.

Freeman, Horace, and Nichols Eng. & Res. Corp. of Canada, roasting of [zinc] sulphide ore, (P.), B., 796. Iron oxide, (P.), B., 1038.

Freeman, I. M., universal constants and

atomic quantities, A., 1176. Freeman, J. R., jun., and Amer. Brass Co., aluminium brass alloy, (P.), B., 843. Die-

casting [copper] alloy, (P.), B., 1047.
Freeman, M. E., resistance for determination of redox potentials in biological

fluids, A., 1038.

Freeman, S., effect of irradiated ergosterol and parathyroid extract on rate of disappearance of intravenously-injected calcium chloride, A., 1426.

and Farmer, C. J., calcium, inorganic phosphorus, and serum-phosphatase in normal animals and in animals influenced by irradiated ergosterol, A.,

and Ivy, A. C., synthesis of neutral fat by the intestine of diabetic dogs, A., 1411.

Kant, E. R., and Ivy, A. C., serumcalcium response to ingested calcium, A., 238.

Frehner, C., manufacture of cheese, (P.),

B., 714. Frei, H., and Greetzinger, G., electrical energy set free on melting electrets, A., 1446.

Frei, J. See Ruzicka, L. Frei, P. See Karrer, P.

Freidlin, L. C. See Balandin, A. A. Freidlina, R. C., Kozeschkov, K. A., and Nesmejanov, A. N., arylation of mercuri-organic hydroxides by means of organic derivatives of tin, antimony,

and boron, A., 218.

Nesmejanov, A. N., and Tokareva, F. A., organic compounds of mercury. XIV. Reaction of hydroxyethylmercury with diazomethane, A., bromide 1369.

See also Nesmejanov, A. N.Freilich, J., McHugh, S., and Frey, C. N., correlation of experimental and commercial [wheat-bread] baking tests, B., 216.

See also Landis, Q., and Schultz, A.

Freimuth, H. See Simmons, J. P. Freise, F. W., South American curare, A., 534, 1278. Mydriatics and myotics from the Brazilian flora, A., 634. Formation of kaolin and alumina from granite and gneiss, A., 816. Physostigmine-like drug, A., 1037. Paraguay tea and maté leaves, B., 252. Recovery of carnauba wax, B., 750. Spongia fluviatilis seu lacustris, L., B., 906. Stigmata maidis, B., 1127.

Freise, M. G., and Amer. Lurgi Corp., zinc, (P.), B., 646.

Freissler, H. See Müller, W. J.

Freitag, protection of acetylene generators against frost, B., 354. Paint on cement surfaces, B., 545.

Freivert, S., blocking layer in a selenium valve photo-electric cell, A., 814. Frejka, J., and Sefranak, B., bromo-

derivatives of pyrocatechol, A., 602. Fréling, L., and Dorren, J., recovery of

aluminium compounds [from low-grade aluminous material], (P.), B., 1038.

Frémont, T., general properties of vegetable agglutinins and precipitins, A., 1531. Properties acquired by plant extracts after inoculation with bacteria or toxins pathogenic to animals, A., 1562.

French, A. H., and Staley Manufg. Co., wax emulsion [for paper], (P.), B., 735. French, E. H., pure by products from resincontaining liquors, (P.), B., 464. Water-

French, H. E., Johnson, O. H., and Ratekin, E., reaction of esters with ammonia,

A., 1229.

French, J. W. See Barr & Stroud. French, K. S. See Iddles, H. A.

soluble resinate, (P.), B., 802.

French, M. H., nitrogen and mineral metabolism in T. congolense disease, A., 627. Variations of serum-protein fractions during an attack of rinderpest, A., 1016. Making clarified butter (ghee), B., 616. Animal nutrition research, B., 665.

French, O. C. See Ball, W. E.

French, S. J., m.p. of eutectics; Lipowitz alloy and Wood's metal, A., 280. Polar molecule concept in elementary chemistry, A., 780. New low-melting alloy, B., 325.

and Saunders, D. J., colour reactions of quinol in solid state, A., 721. Effect of thallium on f.p. of Lipowitz alloy,

Freney, M. R., Mackerras, I. M., and Mackerras, M. J., glycerin-boric acid dressings for fly-struck sheep, B., 516.

Frenkel, A. M., operation of the Dnieper

alumina plant, B., 199.

Frenkel, G., recovery of volatile solvents used in the manufacture of films and foils, (P.), B., 927. Manufacture of films and foils from plastic masses, and products coated with such masses, (P.), B., 1147.

Frenkel, G. A. See Shell Development Co. Frenkel, J., double refraction of X-rays in crystals, A., 552. Rotation of dipole molecules in solid bodies, A., 1053. Liquid state and the theory of fusion. I. and II., A., 1189. Theory of polarisation of dipole moments, A., 1447. Theory of movable voids and interlattice atoms in crystals, A., 1448.

Frens, A. M. See Brouwer, E. Frere, F.J., equilibrium in fluoride systems. I. Solubility of cryolite in aqueous solutions of iron and aluminium salts at 25°,

Frèrejacque, M., regulated hydrolysis of acetyl derivatives of reducing sugars, A., 716.

Freri, (Signa.) M., transformation products of hydrazides of organic acids. III., A. 597. Abnormal action of nitrous acid on hydrazides of organic acids, A., 614. Fresa, R. See Vallega, J.

Frescol, Ltd., and Wilson, R. E., electroplating or electro-deposition processes,

(P.), B., 940.

Freud, J., difference between "male hormone" extracts from urine and from testicles in hypophysectomised rats, A., 253. Action of various male hormones on hypophysectomised animals, A., 1302. Sex hormones, A., 1563.

and De Jongh, S. E., effect of progestin on the mammary gland of the rat,

A., 643. See also David, K., and Dingemanse, E. Freudenberg, E., biological importance of phosphate esters of red corpuscles, A., 1529. Freudenberg, H. See Freudenberg Ges. m.b.H., C.

Freudenberg, K., kinetics of long-chain disintegration applied to cellulose and starch, A., 295. Cellulose as a highly polymerised compound, A., 1096. Chemistry of polysaccharides. II. Starch, B., 1173.

and Blomqvist, G., hydrolysis of cellulose and its oligosaccharides, A., 57.

Blomqvist, G., Ewald, L., and Soff, K., hydrolysis and acetolysis of starch and Schardinger's dextrins, A., 970.

Janson, A., Knopf, E., and Haag, A., lignin. XV., A., 995.

and Rapp, W., starch and the Schardinger dextrins, A., 1366.

and Soff, K., biose from methylbioside; synthesis of 2-\beta-glucosidoglucose, A., 969. Degradation of starch by acctyl bromide, A., 970.

Westphal, O., and Groenewoud, P., group-specific A-substance in human urino and animal tissue, A., 1285.

Freudenberg, $W_{\cdot \cdot}$, structure of aconitine, A., 1277.

and Rogers, E. F., l-cphedrine, a degradation product of the alkaloids in Aconitum napellus, A., 618.

Freudenberg Ges.m.b.H., C., fibrous material from animal skins, (P.), B., 141. Improvement of gelatin, (P.), B., 209. Textiles [from animal skins], (P.), B. 636. Shaped products from animal fibrous material, (P.), B., 1087. and Freudenberg, H., fibrous material

from animal skins, (P.), B., 609.

Freudenberger, C. B., and Clausen, F. W., effect of 1% of cod-liver oil on the rat with reference to the thyroid gland, A.,

Freudweiler, R., chemical composition of Aconitum napellus and physiological evaluation of standardised dry extracts, A., 652.

Freund, E. O., purified viscose solutions, (P.), B., 313.

and Visking Corp., extrusion of viscose, (P.), B., 927.

Freund, Hans. See Brandt, O.

Freund, Hermann, pharmacology of bromoacetic acid, A., 373. Site and mode of action [of therapeutic substances] and intermediary metabolism, A., 517.

Freund, H. H., and Du Pont Rayon Co., [thread-]dressing composition, (P.), B.,

Freund, M., vegetable oils as substitutes for mineral oil products, B., 1188.

Freundlich, H., thixotropy and allied phenomena, and their biological significance, A., 158. Structures and forces in colloidal systems, A., 1337. [Application of] viscose and latex, B., 58. Weigert's phenomenon and its importance in photography,

and Gordon, P. S., swelling pressure of isinglass in water and aqueous solutions, A., 1202.

and Söllner, K., influence of ultrasonic waves on gels, A., 796.

See also Daniel, F. K. Freure, B. T. See Carbide & Carbon Chem. Corp.

Frevel, L. K., configuration of the azide

ion, A., 783. Frewing, J. J. See Thompson, Harold W. Frey, A., preparation of gentian brandy from dried gentian roots, B., 1122.

Frey, A., and Malenke, E., steaming rye in the high-pressure process, B., 758. Composition of the first and last runnings of [fermented] plum water. II., B.,

and Miller, M., dependence of caramelisation of distillery mashes on steam pressure and duration of steaming,

and Spindler, E., effect of magnesium manuring on [plant] physiology and crop yields, B., 114.

See also Braun, W.

Frey, A. A., manufacture of iron, (P.), B., 1045.

Frey, C. N., Kirby, G. W., and Schultz, A., physiology, manufacture, and uses of yeast, B., 1121.

See also Freilieh, J., Gore, H. C., Landis, Q., and Schultz, A.

Frey, E. K., Werle, E., and Sackers, E., action of intravenous and intramuscular injections of callierein in man, A., 1147.

Frey, F. E., and Phillips Petroleum Co., conversion of hydrocarbons, (P.), B., 916.

Frey, R. W., and Stuart, L. S., pilot-scale calfskin curing with treated salt, B.,

Sec also Beebe, C. W.

Frey-Wyssling, A., elements indispensable for plant nutrition, A., 122. Physiological system of products eliminated by plants, A., 256. [Optical] dispersion of natural and mercerised cellulose, A., 1447.

See also Meyer, Madelcine.

Freyberg, R. H., and Grant, R. L., calcium and phosphorus metabolism in pituitary basophilism, A., 1289.

Newburgh, L. H., and Murrill, W. A., cholesterol content of blood in diabetic patients on fat-rich diets, A., 1540.

Freyer, E., frames for protecting and repairing Lovibond colour glasses, A., 1355. Rapid visual method for determining lint on cottonseed, B., 93. Simplification of the Wheeler-Swift stability test [for fats and oils], B., 1106.

Freyermuth, G. H. See Standard Oil Development Co.

Freymann, (Mme.) M., comparison of the infra-red absorption and Raman spectra of primary aliphatic and aromatic amines, A., 921.

and Freymann, R., constitution of oximes and their near infra-red absorption spectra, A., 406. Infra-red absorption spectra and Raman spectra of amides and anilides and the structure of these compounds, A., 922.

Freymann, R., and Rumpf, P., absorption spectra in the near infra-red of

aniline derivatives, A., 1179. Freymann, R., measurement of dielectric constant for very short waves with

a registering apparatus, A., 697. See also Freymann, (Mme.) M., and

Zouckermann, R. Freyssinet, E., high-early-strength concrete with Portland cement, B., 545. Accelerating hardening of mortars and concretes, (P.), B., 1154.

Freytag, A. See Müller, Ernst.

Freytag, H., application of "Hanau" artificial sunlight lamp in qualitative analysis. I. Photo-analysis in pyridine and indole scries, A., 219.

Freytag, H., action of ultra-violet light on pyridine. VI. Reactions of photopyridine and behaviour of pyridine derivatives in the region of ultra-violet radiations, A., 342. Textile photochemical investigations. V. Production of half-tones on materials by ultra-violet pattern dyeing, B., 572. Rayon from natural silk wastes, B., 924. Friberg, S. Sco Toivonen, N. J.

Fricke, H., simplified sensitometry of photographic films, B., 395.

and Curtis, H. J., determination of surface conductance from measurements on suspensions of spherical particles, A., 1206.

and Hart, E.J., reactions induced by the photoactivation of the water molecule.

I., A., 1077. See also Curtis, H. J.

Fricke, R., hydroxide and oxide hydrate gels, and their amphoteric properties, A., 158.

Fricker, K., N-substituted amides of the pyridinecarboxylic acids, (P.), B., 976. Frickhinger, H. W., storage scab and its control, B., 422.

Fridén, E. See Hedvall, J. A.

Fridli, R., and Raffay, B. von, determination of creosote in brown-coal tar oil, B., 1075.

Fridman, S. G. See Kuzmin, V. A. Fridschtein, I. L., Tiulneva, A. F., and Safonova, M. K., separation of butadiene and ψ -butylene, B., 945.

Fried, S., and Susz, B., Raman spectrum of hydroxyquinol trimethyl ether, A., 1319.

See also Susz, B.

Friedeberg, H. See Ohie, H. Friedel, A. F. J., nutrient material for growth of yeast cells, (P.), B., 40.

Friedel, W., tables for converting d_{20}^{20} into d_{+}^{20} (vac.), A., 1482.

Friedemann, T. E., and Klass, R., determination of ethyl alcohol, A., 1229.

Friederich, W., high-level detonation veloci-

ties, B., 1181.

Friedgood, II. B., effect of an alkaline extract of the anterior pituitary on weight of the spleen and adrenal glands and on the blood-calcium level, A., 900. Similarity of the iodine remission in experimental anterior hypothyseal hyperthyroidism, the hyperthryroidism of acromegaly, and that of exophthalmic goitre, A., 1565.

Friedheim, I. See Rosenthal, F. Friedland, II. See Remy, II.

Friedland, I. B. See Kaschevnik, L. D. Friedlander, M., Laskey, N., and Silbert, S., thrombo-angiitis obliterans (Buerger)

X. Reduction in blood volume following bilateral oophorectomy, A., 232.

Friedman, A. F. See Morgulis, S. Friedman, A. H., and Morgulis, S., oxidation of amino-acids with sodium hypo-

bromite, A., 973. Friedman, B. See Resnik, H., jun. Friedman, H., hempseed oil, B., 334.

Friedman, I. See Thompson, W. R.

Friedman, S., infant feeding and nutrition, A., 102.

Friedmann, E., thiol compounds as catalysts for decomposition of sodium azide by iodine, A., 1212. Unsaturated aralkyl ketones. I. Anisylidenemethyl methyl, [ethyl,] and n-propyl ketones. III. Polymorphism of ethyl p-methoxycinnamoylpyruvate, A., 1252, 1254.

Friedmann, E., dihydroresorcinols. dihydroresorcinol-Hydrolysis of carboxylic esters. II. Autoxidation of dihydroresorcinol derivatives. III. Condensation of p-methoxystyryl methyl and ethyl ketone with ethyl ethane-aaß-tricarboxylate, A., 1253, 1256. Preparation of homolævulic [γ -keto-n-hexoic] acid, A., 1361.

and Giršavičius, J., reactions of pyruvic acid with thiolacetic acid and cysteine,

A., 1361.

and Heyningen, W. E. van, unsaturated aralkyl ketones. II. o-Tolylidenebenzylidene- and di-o-tolylidene-acctone, A., 1254. aδ-Diarylbutadienes and related compounds. I. a-Phenylδ-1-naphthylbutadiene. II. αδ·Diarylbutadiene - $a\beta$ - dicarboxylic hydrides, A., 1371, 1378.

Friedmann, H., differential threshold of reaction to vitamin-D deficiency in the house-sparrow and the chick, A.,

1430.

Friedmann, J. Seo Akimov, G. V. Friedmann, W., determination of strength of thin wires towards repeated flexion, B., 151.

Friedrich, A., and Bauer, Emil, neutral sulphur of normal and pathological urines, A., 1406.

and Sternberg, H., determination of acetyl in carbohydrate derivatives, A.,

Friedrich, H. See Rimarski, W. Friedrich, W. See Fischer, Hans.

Friedrichs, C. C., jun., [water-]purification methods at New Orleans, B., 622.

Friedsam, A. See Bohn, H.

Friedwald, M., paraffin [wax] and its uses. I.—III., B., 135, 799. Preparation of liquid motor fuel from carbon monoxide and hydrogen, B., 1076.

Friend, W. Z., and Leckie, F., industrial propane for bright annealing, B., 993.

Fries, G. See Enders, C.

Fries, K., and Bestian, H. [with Klauditz. W.], o-divinylbenzene and naphthalene, A., 714.

Friesenhahn, P., and "Unichem" Chemikalien-Handels Akt.-Ges., wetting-out, cleaning, and emulsion agents in a solid grindable form, (P.), B., 633. Detergent compositions, (P.), B., 633.

Friestedt, S. H., tanning of leather, (P.), B.,

Frigidaire Corporation. See Fleischer, J. Frings, H., apparatus for production of vinegar, (P.), B., 759.

Frisch, C., Lederer, E., and Willheim, R., lipochromes and glycolysis, A., 638.

and Willheim, R., glycolysis in cancer, II., A., 1538. Pasteur and Meyerhof's reaction, A., 1555.

Frisch, O. R., Hevesy, G., and McKay, H. A. C., selective absorption of neutrons by gold, A., 402.

and Placzek, G., capture of slow neutrons, A., 402.

Frisch, S., nuclear moments, A., 403. Frischmut, M. A. See Nikolaev, V. I. Frisell, B. See Geddes, W. F.

Frisk, P. W., water-purification difficulties with spore-forming bacteria and high concentration of organic matter, B., 670.

Fritsch, A., dyeing technique and bleaching of "Vistra" fibres and mixed yarns prepared therefrom, B., 831.

Fritz, F., driers and their application, B., 1216.

Fritz, H. E., uso of Korolac as a protective coating on electroplating racks, B.,

Fritz, J. C., Hendricks, W. A., and Titus, H. W., effect of previous feeding on nitrogen exerction of fasting birds, A.,

Fritze, pulp-centrifuge in potato-starch manufacture, B., 294.

Fritze, J. R. See Sutton, R. S.

Fritzsche, C. H., estimation of waste combustibles at coal mines, B., 529.

Fritzsche, H. See Karrer, P.
Fritzweiler, R., ethyl alcohol as motor spirit, B., 727.

and Dietrich, K. R., preparing absolute alcohol, B., 732.

Frivold, O. E., determination of magnetic susceptibilities of diamagnetic compounds; calculation of ionic susceptibilities, A., 556.

Hassel, O., and Rustad, S., refractive indices of ordinary and heavy am-

monia, A., 1322.

Hassel, O., and Skjulstad, T., refractive index and molecular refraction of hydrogen selenide and deuterium selenide, A., 409. Frizzell, L. D. See Greene, C. H.

Frobel, E. See Arndt, F.

Frocrain, L., and Lasausse, E., non-interference of sodium chloride in determination of copper and iron in biological material, A., 536.

See also Lasausse, E.

Fröhlich, H., inner photo-effect with semiconductors, A., 548.

and Heitler, W., time effects in the magnetic cooling method. II. Conductivity of heat, A., 1191.

Froehlich, O. K., permeability of concrete to water and the height of capillary rise,

B., 934.

Froelich, W., treatment of impurities in production of electrolytic zinc, B., 201.

Frölicher, E., resorption of bile acids in the small intestine, A., 369.

Froentjes, W. Sco Lifschitz, I.

Fröschl, N., and Danov, C. G., catalytic hydrogenation of acid chlorides in the vapour phase at atmospheric pressure, A., 313.

Frötschner, H., fine-grain development and sensitivity, B., 909.

Frolich, P. K. Seo Standard Oil Co., and Standard Oil Development Co.

Frolov, S. S. See Minaev, V. I. Frolova, G. F., and Kuzjak, F. A., washing out Gay Lussac towers in the tower

sulphuric acid process, B., 190.
Frolova, P. A. See Korshev, P. P.
Frolova, R. A. See Prianischnikov, N. D.

Fromageot, C., and Desnuelle, P., rôle of oximinopyruvic and acrylic acids in the synthesis of alanine by yeasts during alcoholic fermentation, A., 1026.

and Laroux, P., nitrogenous nutrition of propionic bacteria. I, and II., A.,

and Minard, G., effect of a-keto-acids other than pyruvic acid on synthesis of amino-acids by yeast, A., 1558. See also Chaix, P.

Froman, D. K., deuterium and X-ray absorption, A., 13.

See also Stearns, J. C.

Fromherz, H., importance of absorption of light in chemistry, A., 949. Modern representations of chemical com-

bination, A., 1185. Aumüller, W., and Strother, C. O., mutual optical effect of neighbouring colour carriers in a molecule, A., 1317. and Hartmann, Adolf, light absorption

and tautomerism of uric acid, A., 1317. Fromherz, K., evaluation of cardio-active and glucosides by means of frogs, A., 1294.

Fromm, J., formation of rough surfaces on rubber goods, (P.), B., 754. Vulcanisation of rubber goods, (P.), B., 946.

Fromme, H. See Bickenbach, W

Fron, G., disinfection of beet seed, B., 116. Frondel, C., vectorial chemical alteration of crystals, A., 307. Instances of incrustations selective upon crystal forms, A., 958. Mineral incrustations upon edges and corners of crystals, A., 958. Origin of segmental coloration of amethyst and

smoky quartz, A., 1087.

Frosch, C. J., wood preservation. V.

Correlation of distillation range with viscosity of creosote. VI. Correlation of distillation range with surface tension of creosote. VII. Correlation of distillation range with interfacial tension of creosote against water, B., 409.

Frossarelli, \tilde{C} . See Sunder, C.

Frost, A. A., and Oldenberg, O., spectroscopic investigation of chemical reactions of OH in the electric discharge, A., 1317.

Frost, A. V., reaction equilibrium between carbon, hydrogen, methane, and acetylene at high temperatures, B., 482.

See also Dobitschin, D., and Rudkovski,

Frost, C., St. John, J. L., and Gerritz, H. W., calcium gluconate from juice of cull and surplus apples, B., 343.

Frost, F. L., jun. See Grasselli Chem. Co. Frost, J. G. G., and Nat. Smelting Co., smelting of aluminium, (P.), B., 281. , and Vitreous Enameling Co., acid-resistant vitreous enamel composition, (P.), B., 790.

Frost, S. W., dormant and delayed dormant sprays for aphids and red spider, B., 756.

Frost, W. See Staudinger, H.

Frosted Food Co., Inc. See Daughters,

Frosted Wool Process Co. See Greenleaf, R, M,

Frugoni, P. See Coppo, M. Frumin, S. D., effect of Schiff's zwieback on secretion of gastric glands, A., 1139. Frumkin, A., and Fuchs, N., vapour pressure of small drops and crystals, A., 1191.

See also Gerovitsch, M., Levina, S., Obrutscheva, A., and Schligin, A.

Frumkin, L., and Margaritov, V., shockabsorbing quality of rubber, B., 244.

Fruton, J. S. See Bergmann, M.
Fry, A., and Nitralloy Corp., steel alloy, (P.), B., 459.
Fry, E. M. See Rescorla, A. R., and

Tongberg, C. O.
Fry, H. D. See Fairleede Engineering, Ltd.
Fry, H. S., and Culp, W. V., reaction mechanism: action of fused sodamide on mono-, di-, and tri-methylamines,

and Milstead, K. L., action of hydrogen peroxide on simple carbon compounds. III. Glycollic acid, A., 190.

Fry, W. See Dow Chem. Co.

Fry & Sons, Ltd., J. S. See Walker, W. B.

Fryling, C. F., and Tooley, F. V., formation of hydrogen peroxide in the silver reductor: micro-analytical method for iron, A., 813.

and White, O., mineral wool industry in America, B., 191.

See also Doherty Research Co.

Fu, C. Y. See Chao, C. Y., and Huang,

Fuehs, E., emulsion technique, B., 348. Preliminary preparation of photographic layers, B., 620.

Fuehs, F., alimentary azotæmia in rats, A.,

Fuehs, G., pressure viscosimetry of kaolin

suspensions, A., 1066.
and Kamsolova, Z., viscosimetric investigations of structure formation in ferrie hydroxide sols. III. Destruction of ferric hydroxide sols on dilution, A., 1067.

and Rabinerson, A., spontaneous structure formation of ferric hydroxide sols, A., 1460.

See also Santenoise, D.

Fuchs, H. C., and Permatex Co., [pastelike] grinding composition, (P.), B., 643. Fuchs, H. G. See Ackermann, D.

Fuchs, H. J., action of two soporifies on molecular combination, A., 891.

Sec also **Zak**rzewski, Z.

Fuchs, J. (Wien), electron temperature and daily variation in the F-region of the ionosphere, A., 916.

Fuchs, Josef, influence of yeast on growth of sarcina, B., 167. Generation period of yeast cells in relation to the medium, B., 213.

Fuchs, K., quantum mechanical investigation of cohesive forces of metallic copper, A., 17. Quantum mechanical calculation of elastic constants of univalent metals, A., 672.

Fuchs, L., absorption-spectral analysis especially as applied to vitamins and hormones, A., 645.

[with Beck, Z.], spectrographic evaluation of solutions of vitamin-D in fats, A., 1304.

Fuchs, N., velocity of fall of "super-Stokes" particles, A., 794. Effectiveness of the collisions of aërosol particles with solid walls, A., 1199.

and Oschman, N., formation of aërosols. I. Technique; sulphuric acid clouds, A., 1066.

and Petrjanov, I., stability and charging of aërosols. II. Experimental, A., 1199.

Petrjanov, I., and Rotzeig, B., rate of charging of dreplets by an ionic current, A., 1199.

See also Frumkin, A.

Fuchs, O., experimental determination of quadrupole moments, A., 924. Extraction of liquids and vapours with liquids, B., 1135.

Fuchs, W., phenol- and methylglycol- $[\beta$ -methoxyethyl alcohol-]lignin from spruce wood, A., 731.

Fuchs, W. H., dependence of the [plant] "condition indicators" on salt nutrition; wheat, A., 1163. Why do liberal applications ations of potash increase resistance of plants to cold? B., 514.

Fuchs, W. M., chemical nature of lignin, B., 490.

Fučik, S. See Bureš, E.

Fucks, W., and Seitz, W., change of striking potential on illumination. I., A., 1438. See also Seitz, W.

Füchtbauer, C., and Schulz, P., influence of foreign gases on the higher principal series lines of sodium, A., 127.

Fünfer, E., a-activity excited in cerium and cæsium by neutrons, A., 1313.

Fürth, O., aud Götzl, F., colour reaction of ammonia and glycine with hypobromite and phenolic substances, A., 493.

See also Boyer, R.

Fues, E., and Deller, A. W., multi-layer paper, cardboard, pasteboard, boxboard, etc., (P.), B., 1202. See also Bergmann, L.

Fuhrmann, L. J., and Allied Mills, Inc., glue and a plastic material and product

thereof, (P.), B., 610. Fuidge, G. H., viscosity of tar; its significance in surfacing of roads, B., 581.

Fujihira, S. See Nagano, M.

Fujii, Y., materials for screw propellers, B., 549.

Fujikawa, F. Seo Kotake, Y., jun.

Fujimura, K., catalytic reduction of carbon monoxide at ordinary pressures. VIII. Influence of the proportions of the two metals in the iron-copper catalyst, A., 1212.

See also Kodama, S.

Fujino, S. See Kato, Yogoro. Fujioka, Y., and Tanaka, Yoshio, molecular spectra of magnesium deuteride, A., 1443.

Fujise, S., Horiuti, Y., and Takahashi, Toshio, synthesis of 2:3-dimethyl-1:2:3:4:10:11hexahydrofluorenone, A., 1380.

and Iwakiri, M., conversion of p-tolylglyoxal into l-p-methylmandelic acid by the enzyme of fresh cells, A., 378. Stereoisomerism of 6-methyldecahydroquinoline, A., 863.

and Nagasaki, A., optically active flavanones. II. Optical resolution of hydroxyflavanones, A., 1263.

and Nishi, T., constituents of Matteucia orientalis. II. Constitution of demethoxymatteucinol, A., 341.

Fujita, A., Taku, T., and Kutani, N., identity of evodin, dictamnolactone, and obakulactone, A., 478.

Fujita, H. See Hachihama, Y.

Fujiwara, Tadayoshi, heat-resisting alloy steels, B., 411.

Fujiwara, Takeo, and Hudita, T., method of observation of gelation, A., 935.

and Imanaka, Y., fibrous structure of native cellulose in Japanese Kôzo and Ganpi (Broussonetia sp. and Wiktroemia sp.), A., 927. and Seiki, Y., Eddy arrangement of

micro-crystals in metallic wire caused

by drawing, A., 1326.

Fukabori, S., relation between openhearth slag charged in a blast furnace and the phosphorus concentration in pig iron produced, B., 195.

Fukai, K. See Nagai, S.

Fukaki, S., planting of rice (Oryza sativa) III. Effect of acidity and concentration of nutritive medium and type of nitrogenous salts on planting in aqueous media, B., 247.

Fukami, Y. See Nakai, T.

Fukamizu, T. See Nishida, Kitsuji.

Fukiwake, T. See Masai, Y. Fukuchi, K., eatalase in lymphocytes, A.,

Fukuda, M., and Kasai, M., saponinlike substance of radix elematidis, A.,

Fukuda, T. R., ionic antagonism in waterpermeability of sea-urchin eggs, A.,

Fukunaga, M., coal for coke manufacture, B., 480.

Fukuoka, M., autolysis of lymph. I. Reducing power, A., 98.

Fukuroi, T., optical and electrical properties of thin metallic films at low temperatures, A., 1187, 1188.

See also Aoyama, Shin-ichi.

Fukushima, E., relation between mechanical strain and intensity of X-rays reflected by a quartz plate. I .-- III., A., 15, 142, 273.

Fukuwatari, S. See Shikata, M. Fuller, C. H. F., micro-organisms in bread-

making, B., 425.
Fuller, C. S., gutta-percha; effect of vulcanisation on its X-ray diagram, B., 1112.

Fuller, B. W. See Story, B. W.
Fuller, G. C. See Gardner, F. D.
Fuller, G. D., and Leadbetter, M. R.,
effects of fuel oil on plants, A., 395.

Fuller, J., staining studies of the Lehigh Valley dolomitic limestone, A., 449.

Fuller, L., Fuller, G. J. A., Sudlow, E. W., and Hayes, T. W., electrical storage batteries, (P.), B., 27.

Fuller Lehigh Co. See Bailey, E. G. Fullerton, H. W., and Innes, J. A., idiopathic steatorrhea with multiple nutritional deficiencies, A., 1542. See also Heath, C. W.

Fulmer, E. I., fermentative utilisation of cellulosic materials, especially pento-

sans, B., 902.

Christensen, L. M., Hixon, R. M., and Foster, R. L., production of fur-furaldehyde from xylose solutions by means of hydrochloric acid-sodium chlorido systems, A., 340.

Dunning, J. W., Guymon, J. F., and Underkoffer, L. A., effect of con-centration of sorbitol on production of sorbose by action of Acetobacter suboxydans, A., 1155.

Underkoffer, L. A., and Lesh, J. B., effect of composition of medium on growth of yeast in presence of bios preparations. I. Effect of magnesium salts, A., 1421.

and Williams, J. C., determination of wall correction for the falling-sphere viscosimeter, A., 306.

See also Bryner, L. C., Staveley, H. E.,

Underkoffer, L. A., and Veldhuis, $L.\ M.$

Fulton, A.J., sewage purification and sludge digestion at Coatbridge, B., 861.

Fulton, McD. See Carpenter, P. L. Fulton, M. N. See Ethridge, C. B. Fulton, R. K. See Koppers Co. of Dela-

ware.

Fulton, R. R. See Harvey, R. B. Fulton, S. C. See Standard-I.G. Co., and Standard Oil Development Co.

Fulweiler, W. H., determination of nitric oxide in gas, B., 402.

Jordan, C. W., and United Gas Improvement Co., gas meter and diaphragm therefor, (P.), B., 85. See also Ward, A. L.

Funakubo, E., and Hirotani, T., introduction of the triphenylmethyl group. I., A., 1388.

Funaoka, S., alkali and alkaline-earth salts of sugar phosphorio acid esters, (P.), B., 1234.

Fundiler, B. M. See Salkind, J. S.

Fundiler, F. B. See Salkind, J. S. Funk, A. See Traube, IV.

Funk, F. J. See Du Pont de Nemours &

Co., E. I. Funk, H., and Demmel, M., action of anhydrous ferric chloride on anhydrous acetic and formic acids, A., 691.

Funk, R. V. See Ennis, G. H. Funke, G. W., rotation-vibration spectrum of acetylene in the photographic infrared, A., 662. Absorption spectrum of NH, A., 1176.

and Grundström, B., the C system of barium hydride, A., 920.

and Herzberg, G., rotation-vibration spectrum of acetylene in the photographic infra-red, A., 268.

Funke, J. See Hüttig, G. F.

Funke, K., and Müller, Eugen, chrysene. I., A., 472.

Müller, Eugen, and Vadasz, L., chrysene. II., A., 472.

and Ristic, J., chrysene. III. and IV., A., 1113, 1381.

Funnell, E. H., Vahlteich, E. McC., Morris, S. O., MacLeod, G., and Rose, M. S., protein utilisation as affected by the presence of small amounts of bran or its fibre, A., 1543.

Fuoss, R. M., transition cases in distribution of ions, A., 289. Influence of dipole fields between solute molecules. III. Thermodynamic properties of non-

electrolytes, Å., 936. See also Luder, W. F., and Mead, D. J. Furbush, F. L., and Sargent's Sons Corp.,

dryer, (P.), B., 128.
Furgason, A. P. Sco Cave, D. B.
Furihata, M. Seo Kobayashi, R., and

Tanaka, Yoshio. Furlong, R. W. See Fisher, C. H.

Furlonger, G., colour measurement [in textiles], B., 98.
Furman, N. H., and Murray, W. M., jun.,

reducing action of mercury. I. Formation of hydrogen peroxide in interaction of mercury with hydrochloric acid in presence of oxygen. Π . Stability of quinquevalent molybdenum solutions; determination of molybdenum by reduction with mercury and titration with ceric sulphate, A., 574, 1353.

See also Murray, W. M., jun.

Furnas, C. C., solid carbon reactivity, B., 675. Kinetics of reactions of interest to ceramists; disintegration of blastfurnace linings due to carbon deposition, B., 790.

See also Brunies, A. S.

Furneaux, B. S., and Glasscock, H. H., soils in relation to marsh spot of pea seed, B., 247.

Furness, R. See Lever Bros. Furnival, G. M., large quartz veins of Great Bear Lake, Canada, A., 448.

Furr, J. R. See Magness, J. R. Furry, W. H., neutron absorption in aqueous solutions, A., 1172. and Oppenheimer, J. R., theory of the

positron, A., 130. Furtsch, E. F., [with Stegeman, G.], heat capacity and entropy of β-lactose,

Furuya, M. See Imamura, Y. Furzey, D. G. See Beet, A. E. Fusco, R., and Musante, C., alkyl hypochlorites. I. Action on Schiff's bases. A., 964.

See also Quilico, A.

Fusejima, O., glycogen in the central nervous system of human embryos, A.,

Fuson, R. C., Alexander, L. L., Ellingboe, E., and Hoffman, A., addition of benzene to 2- and 4-styrylquinolines, A., 1520.

See also Alexander, L. L., Arnold, R. T., and Weinstock, H. H., jun.

Fuss, H., and Sveindal, G., assimilation of

fructose during narcosis, A., 1021.
Fusteig, R., hydrogenation of mineral oils, B., 51. Corrosion of metals in mineral oil industry, B., 412. Conversion of cracking gases into liquid products, B., 677. Production of gasoline by polymerisation of gases, B., 866. Physical refining of [mineral] oils, B., 1138.

Futagami, T., velocity of atoms and ions projected from a wire exploded elec-

trically, A., 1171.

Fuwa, K., continuous and repeated melting of glass, B., 192. Phenomena produced by the Corhart block on glassware, B., 496. Glasses coloured by carbonaceous matter. I., II. Coloration by pure graphite, pure carbon black, and purified sucrose, B., 1207.

See also Gen. Electric Co. Fuwa, Y. See Kuwada, S. Fuzikawa, F. See Asahina, Y.

G.

Gaade, W., ethers of ethane-aβ-dioxamie acid and their derivatives. II., A.,

Gaas, F., feeding young pigs with rations containing sweet and sour milk and with no milk, B., 427.

Gabbe, E., vitamin-C in urine of healthy and diseased men, A., 647.

Gabiano, P. See De Mallemann, R. Gable, C. P. See Butterworth, S. D.

Gabler, F., and Sokob, P., Kerr effect with nitrotoluene, A., 1322.

Gabriel, A. See Schroeder, W. C. Gabriel, L. G. See Colas Products, Ltd.

Gachokidze, A. M. See Danilov, S. N. Gachtel, F. G. See Schtraler, F. E.

Gad, G., use of activated carbon for determination of nitrate, nitrite, and ammonia in water and effluents, B., 398. Determination of lead in drinking water,

Gadaskina, N. D., Petrova, I. N., Balandina, E. A., and Malkovitsch, K. A., distribution of benzene and toluene in fractions of vapour-phase-cracked gasoline and their separation, B., 483.

Petrova, I. N., and Balandina, V. A., chemical composition of vapour-phase cracked gasolines, B., 483.

See also Dobrjanski, A. F. Gaddum, J. H. See Barsoum, G. S.

Gadeau, R., manufacture, properties, and uses of refined aluminium, B., 24. Beryllium, B., 550. Electrolytic refining of aluminium, B., 1100.

Gaede, W., low-pressure measurements, A., 306. Physics of high-vacuum techno-

logy, B., 719.

Gänswein, P., and Mecke, R., near infrared absorption of hydrocarbons. II. Gascous paraffins, elefines, and acetylene, A., 662.

Gärdstam, R., urie acid excretion following administration of creatinine in man under normal and pathological conditions with special reference to renal insufficiency, A., 230.

Gärtner, H., working up of [sugar] byproducts, B., 854. Improvement of vacuum-pan circulation [of massecuites], B., 1119.

Gärtner, Hans. See Erlenmeyer, H., and

Hagenbach, A.

Gaertner, O., absolute measurement of efficiency of X-ray fluorescent screen,

Gaerttner, E. R., Turin, J. J., and Crane, H. R., β -ray spectra of several slow neutron-activated substances, A., 918. See also Bayley, D. S., and Crane, H. R. Gaev, A. I. See Barabosehkin, N. N.

Gaev, I.S., microscopical analysis of chromium steel ingots for ball bearings, B., 457.

Gaffron, H., metastable oxygen and assimilation of carbon dioxide, A., 1570.

and Wohl, K., theory of assimilation, A., 392. Assimilation methods of various types of Chlorella, A., 1033. Gagen-Torn, V. O., influence of manganese

on properties of α+β-brass (Muntz metal), B., 994.

Gahide, M., volumetric determination of palladium by means of oximes, A., 445.

Gahl, R. See Udhe, F. Gaidies, G. See Gen. Electric Co.

Gailer, K., excitation function of mercury for atomic collision, A., 4.

Gaillot, P. See Goissedet, P.

Gailly, R., American malleable cast iron, B., 277.

Gaines, A., jun., Hammett, L. P., and Walden, G. II., jun., structure and properties of mononuclear and polynuclear phenanthroline-ferric complexes, A., 1324.

Gainey, P. L., total nitrogen as factor influencing nitrate accumulation in soils, B., 1170.

Gajdos, A. See Fiessinger, N.

Gajevskaja, M. S. See Butkevitsch, V. S. Gajewski, Z. See Szper, J.

Gajowczyk, F., and Suszko, J., diastereonaphthalene-1:5-disulphinylisomeric acetic acids; equivalence of the 1:5positions in naphthalene, A., 466.

Gál, I., determination of ascorbic acid by titration, A., 1567.

See also Havas, L.

Galatzky, A., mercury powder, A., 39.
Gale, P. T. See Imperial Chem. Industries.
Gale, W. A. See Burke, W. E.
Galgiani, J. V., and Tainter, M. L., in-

creased cardiac output [after administration of dinitrophenol], A., 890.

Galibourg, J., mechanical properties of metals exposed to corrosion, B., 549. Ageing of steel, B., 598. Mechanical tests [on metals] at elevated temperatures, B., 600.

Guillet, L., and Popoff, creep tests on bearing metals, B., 325.

Galinovsky, F. See Späth, E. Gallagher, J. S. See Texas Co. Gallagher, T. F. See Nelson, W. O. Gallais, F., cæsium mercury iodide, A., 438. See also Lucas, R.

Gallaugher, A. F., and Hibbert, H., reactions relating to carbohydrates and XLIX. Mol. wt., polysaccharides. molar refraction, f.p., and other properties of polyethylene glycols and their derivatives, A., 1360.

Gallay, W., sorption of iodine by poly-

vinyl alcohol, A., 676.

and Bell, A. C., effect of various starches on stability of baking powders, B., 1014,

Galle, E., methods of working up tars, B., 965.

Gallego v Gómez, F., microdetermination of lead in normal and pathological tissues, A., 1308.

Galletti, A. C., relations between particle size and physical properties of soils, B., 466. Physical examination of soils, B., 466.

and Pantoli, B., effect of chemical fertilisers on physical properties of

soils, B., 466. Galliano, G. See Belladen, L.

Gallie, G., Goldschmidt sulphur, B., 931. Galligan, W. E. See Levine, M. Gallissot, (Mlle.) M. See Auger, V. Gallitelli, P., alkaline trachite from Dsche-

bel Auenat in the Lybian desert, A., 584. Quartz from Bavena, A., 1357. Minerals of Baveno granite: molybdenum glance,

Gallizia, E. See Gen. Electric Co.

Gallo, G., equilibrium between strontium sulphato and water at various temperatures, A., 282. Conversion of strontium sulphate into carbonate, A., 689. Production of potassium and sodium hydroxides from the respective sulphates, B., 273.

Galloni, E. E. See Palacios, J. Gallotti, M. See Polacci, G.

Galloway, A. S., and Read, J., different reaction velocities of enantiomers with a common optically active reagent. I. New reactions of d- and l-camphor-10-sulphonyl chlorides, A., 1258. New methods in stereochemistry. III. New optically active reagents for ketones and aldehydes, A., 1258.

Gallsworthy, B. Sco Texas Co.

Gallup, W. D., hardness of butter fat, B., 460. Variations in gossypol and oil content of cottonseed, B., 1054.

and Kuhlman, A. H., composition and digestibility of mung bean silage; the silica-ratio procedure for studying digestibility, B., 905.

and Reder, R., effect of calcium carbonate and sodium bicarbonate on toxicity of gossypol [in cottonseed cake], B., 522.

Gallwitz, K., technique of insect control, B., 1062.

Gálócsy, Z. See Koller, K. Galopin, R., chemical differentiation of polished metallic minerals by the contact method. III. and IV., A., 444.

Galperin, N., design of evaporators, B.,

Galpern, G. D. See Terentiev, A. P. Galter, E., testing of [wheat-flour-mill] streams, B., 215.

Gamble, W. H., and Paget, R. F., uses of coal for brickworks, B., 837.

Gamo, J. See Tatsumi, M. Gamow, G., possibility of selective phenomena for fast neutrons, A., 1044. and Teller, E., selection rules for the

 β -disintegration, A., 1045. See also Bloch, F.

Ganapathi, K., orienting rule of Svirbely and Warner, A., 599.

See also Guha, P. C.

Ganapati, S. V., report of water analyst (Corporation of Madras), 1933, B., 526. Gander, R. See Whitney, R. S.

Gandini, A., chlorination of camphane, A., 1257. Essential oil of Italiangrown Eucalyptus rostrata, B., 1017.

Gane, R., formation of ethylene by plant tissues and its significance in ripening of fruit, A., 394.

Gangl, J., chemical determination of the age of fossilised bones, A., 878.

and Dieterieh, H., direct determination of small amounts of arsenic in presence of mercury, A., 695.

and Posega, R., mineral water from the Graf Ludwigstorff iodine-sulphur spring at Bad Deutsch-Altenburg, A., 1226.

and Vázquez Sanchez, J., progress of the formation of the arsenical mirror in the Marsh apparatus and the determination of small quantities of arsenic,

A., 1220.
Ganguli, A., physical properties of crystals, A., 1449.

Ganguli, K. See Bhattacharyya, P. B.

Ganguli, N., magnetic studies on graphite and graphitic oxides, A., 416. Magnetic isotropy and crystal structure of hexaethylbenzene, A., 784.
Ganguly, P. B. See Lal, P.
Ganino, G., autoclave preparation of

glycerin of starch, B., 1127.

Gann, J. A. See Dow Chem. Co. Gans, D. M., and Harkins, W. D., nuclear chemistry and the scattering of protons in collisions with neutrons, A., 1314. See also Harkins, W. D.

Gans, H. B., jun., and Holton, A. B., diethyl ethers and derivative alcohols thereof, (P.), B., 1083.

Gans, R., formation of molecular swarms in liquids, A., 144. Cessation of spin in ferromagnetic crystals under the influence of mechanical strains, A., 145. Magnetic behaviour of nickel wire under high torsion, A., 275.

Gantimurov, I. I., oxidation-reduction conditions and the principal properties

of soils, B., 949.

Ganucheau, J. J., internal treatment of boiler water for small industrial plants, B., 719.

Ganz, E., absorption spectrum of water, aqueous solutions, and alcohols between 0.70 and 0.95 μ , A., 775. Absorption spectrum of aqueous solutions between 0.70 and 0.90 μ , A., 1179.

and Gerlach, Walther, effect of temperature on absorption bands of water in salt solutions, A., 775.

Gaponenkov, T. K., formation of nitrosites, A., 729. Essential oils from wild growing Central Asiatic plants, B., 76. Determination of pectic acids and araban in peetin, B., 1016.

and Aleschin, S. S., variations in yield and composition of essential oils of nutmeg sage in relation to meteorological conditions, time of collection, and state of material to be distilled,

B., 76. and Mimrikova, V. N., separation of hydratopectin into calcium and magnesium pectinates and araban by means of water-alcohol-ether, A., 910. Gaposchkin, (Miss) C. P. See Whipple,

Gaptschenko, M. V., and Scheintzis, O. G., microchemical detection of magnesium by means of 8-hydroxyquinoline, A., 812. Microchemical detection of bismuth by means of quinoline thiocyanate, A., 814.

Garach, J., red sulphides of antimony.
I. and II., B., 702, 1166.
Garber, M. I., and Surikov, I. V., deter-

mination of sulphuric acid in presence of ferric salts, A., 42.

Garber, R. J., Dustman, R. B., and Burnham, C. R., yield and composition of cared and carless maize plants in a selfed line segregating barren stalks, A., 1431.

Garbini, R., action of thyroid extracts in experimental lead-poisoning, A., 1022.

Garbutt, H. R., and Hubbard, R. S., micro-Kjeldahl technique for determining fibrinogen, A., 355.

García, G. See Guzmán, J.

Garcia, I. See Roche, A. Garcia, J. V. See Morales, J. C.

Garcia, O., Villaamil, R., and Panganiban, C., purification of antidysenteric scrum with sodium sulphate, A., 623. Garcia, R. F., viscosity of suspensions of

asbestos and yeast, A., 934.

García Banús, A., and Boqué, F., esters of triphenylpropionic acid and their application to the identification of alcohols, A., 1249.

and De Salas, E., diphenylindenes. III. Hydrogenation of diphenylindenes and diphenylindone and other reactions of

this group, A., 1101.

and Monche, J., reducing action of halogeno-organomagnesium derivatives; optically active triarylcarbinols, A., 981. García-Blanco, J., and Aldaya, F., influence

of indole on adsorption of indican by

various adsorbents, A., 932.

and Masa, C., variations in the chlorine content of the blood and nervous system [of rabbits] under the influence of insulin, A., 1302

and Nacle, J., oxidation of indole in various organs of the rabbit, A., 1410.

Nacle, J., and Hernández, C., determination of indoxyl in presence of indole in animal tissue, A., 1404.

García Boada, J. Seo Pascual, J. García de la Cueva, J., photometric measurement of oriented crystallites in metallic wires, A., 782.

and Palacios, J., graphical method of studying crystal structure by the Weissenberg X-ray goniometer; application to aluminium foil, A., 926.

See also Palacios, J., and Rubio, A.
García González, F., furan and pyrrole
derivatives from sugars and ethyl
acctoacetate; relation of the mechanism of this reaction to antiketogenesis, Λ., 1262.

and Quintero Guerra, T., preparation of acctono derivatives of gluconic acid,

A., 967.

and Trujillo Torres, R., constitution of the condensation product of glucosamine with ethyl acctoacetate, A., 972.

Gard, E. W., and Aldridge, B. G., oxidised asphalt, (P.), B., 357.

and Union Oil Co. of California, treatment of oil [to remove asphalt], (P.), B., 260. Garde, G. M. See Varma, P. S.

Gardiner, P. A. See Dewar, J.

Gardiol, E. See Industria Articoli Caoutchouc (I.A.C.), and under Soc. per l'Ind. Articoli Caoutchouc e per Materiali Protettivi ed Antigas.

Gardner, A.C. See Gardner, C.A.

Gardner, C. A., and Gardner, A. C., permanent magnets, (P.), B., 203

Gardner, D., assimilable organic bismuth

salts in oil, (P.), B., 620.
Gardner, E. W. See Texas Co.
Gardner, F. D., Bechdel, S. I., Williams, P. S., Noll, C. F., White, J. W., Erb, E. S., Coffman, E. B., Fuller, G. C., and Enlow, C. R., pasture fertilisation, B., 611.

See also Noll, C. F

Gardner, G. S., reaction velocity in the system solid₁+gas \rightarrow solid₁₁, A., 166.

Gardner, H. A., importance of tung oil to Varnish the varnish industry, B., 68. and resin therefor, (P.), B., 109. Zinc-base white pigment, (P.), B., 286. Pigment, (P.), B., 286. Painting problems in the South [of the United States], B., 419. Colour of oiticica oil, B., 558. Anda-assu oil from Brazil, B., 607. Soft lumbang oil (Aleurites trisperma), B., 648. Comparison of the odour of drying paints, B., 650. Perilla plantings and properties of perilla oil, B., 756 Washability of interior wall paints, B., 942. Physical properties of high-grade prepared paints for exterior and interior surfaces, B., 942. Molybdenum oxide in paints, B., 1055. Metallates, B., 1108. Manufacture of composite articles from [arylsulphonamide-aldehydo resins], (P.), B., 1110.

Hart, L. P., and Sward, G. G., mildew prevention [on painted surfaces], B., 649. Painting of magnesium alloys, B., 649.

Sec also Hart, L. P.

Gardner, H. A., jun., oiticica oil, B., 749. Gardner, H. F., and Certain-Teed Products Corp., hydraulic composition [moulding

plaster], (P.), B., 596. Gardner, H. M. See Mason, C. M. Gardner, J. B. See Bone, W. A., and

Newitt, D. M. Gardner, J. H., and Demaree, W. II., hydrolysis of 2-hydroxyanthraquin-

one-β-d-glucoside, A., 855.

and Hammel, IV. M., local anæsthetics containing the morpholine ring. III. Esters of 2-alkoxycinchoninic acids, A., 1274.

See also Foster, H.

Gardner, M.W. See Kraybill, H.R.

Gardner, R., absorption and titration flask for carbon dioxide determination, A., 46.

and Robertson, D. W., use of sugar-beet petioles as indicators of soil-fertility needs, B., 755.

Gardner, R. H., and Sinclair Refining Co., dewaxing of hydrocarbon oils, (P.), B., 9.

Gardner, W., rôle of capillary potential in dynamics of soil moisture, B., 1115.

Gardner, W. H., shellac compositions for moulding, (P.), B., 288. and Gross, Bernard, simple control test

for determining effect of heat and pressure on shellac moulded articles,

Gross, Bernard, Whipple, C. C., and Fasig, M., shellae moulding powders, B., 30.

Gardner, W. H., and Kappenberg, W., nature and constitution of shellac. XI. Rates of adsorption of moisture by shellae films, B., 703.

and U.S. Shellac Importers' Assoc., shellae composition containing di-cyanodiamides, (P.), B., 895. Shellacsulphanilic acid composition, (P.), B., 895. Shellae composition for moulding and protective coatings, (P.), B., 895. Shellac composition containing a polycarboxylic acid or its anhydride, (P.), B., 895.
Gardner, W. T. See Woodall-Duckham (1920), Ltd.

Gardner, W. U., Gomez, E. T., and Turner, C. W., effects of estrogenic and galactopoietic hormones on mammary gland of the rabbit, A., 252.

Garelli, F., and Tettamanzi, A., mixed molybdates, A., 302. Reaction of tris- β -hydroxyethylamine with tungstic acid, A., 575. Behaviour of tri(hydroxyethyl)amino towards tungstic acid, A., 947. Alcoholysis in the reaction between triethanolamine and bivalent metal salts. IV., A., 1494.

Garey, R.M. See Henwood, A. Garforth, B. See Boots Pure Drug Co., and Rowe, F. M.

Garilli, D. See Padoa, M. Garlick, E. T. M., sedimentation and anaërobic digestion of sewage sludge at Colac, Echuca, and Mildura, Australia, B., 3Ó1.

Garlough, F. E. See Munch, J. C., and Ward, J. C.

Garman, R. L., continuous-reading electrontube conductance meter, A., 582. See also Kinney, G. F.

Garnatz, G. F., application of fats and oils to the baking industry, B., 107.

Garner, C. S., Green, E. W., and Yost, D. M., potentials of cells in liquid ammonia solutions; thermodynamic constants of amminocadmium chlorides and of cadmium chloride, A., 31.

See also Noyes, A. A., and Swift, E. H. Garner, Frank H., and Sanders, H. G., crop husbandry. III. Effect of time of application of ammonium sulphate to wheat, B., 515.

Garner, Frederick H., different methods of assessing the ignition quality of Diesel fuels, B., 867.

and Broom, W. E. J., accuracy of Engler

viscosities, B., 436. Broom, W. E. J., and Taylor, J. L., Redwood-kinematic relationships at 70° F., 140° F., and 200° F., B., 436. See also Evans, E. B.

Garner, H. V., choice of phosphates for grassland, B., 659.

Garner, J. H. See Lovett, M.Garner, T. L., softening of rubber, B., 31. Importance of carbon black to the rubber industry, B., 111.

and Blow, C. M., plasticisation of rubber, B., 289.

Garner, W., micro-identification of some naphthol-, naphthylamine-, and amino-naphthol-sulphonic acids, B., 971. Cloth oils and catalysts in the Mackey test; oxidation of olive oil, B., 1053.

Garner, W. E., and Latchem, W. E., decomposition of nitrogen iodide, A.,

and Marke, D. J. B., thermal decomposition of sodium and potassium azides, A., 803.

Garner, W. E., and Southon, W. R., nucleus formation on crystals of nickel sulphate heptahydrate, A., 175. See also King, (Miss) A. M.

Garnier, R., and Sabetay, S., Bulgarian rose oil, B., 252.

Garola, cultivation of wheat in Beauce, B., 115.

Garot, L., Vivario, R., and Comhaire, (Mlle.), chemical changes in metabolism in severe malnutrition in infants. Nitrogen metabolism, A., 237.

Garratt, D. C., extraction of lead by means of diphenylthiocarbazone, A., 179. Analysis of complex ointments of the B.P. Codex, B., 75.

See also Coste, J. H. Garreau, (Mlle.) Y., organic salts of a diaminobenzoquinonedisulphonic acid, A., 337. Oxidation of quinol and of chloroquinol in presence of ammonium sulphite; oxidation of a quinoldisulphonic acid in presence of ammonia, A., 721.

Garrett, \bar{C} ., imitation embroidery linens,

Garrett, G. B. See Irwin, J. P.

Garrick, F. J., re-determination of solubility of ehloropentammine cobaltic chloride, A., 282.

Garrido, J., interpretation of Weissenberg diagrams, A., 926. Dehydration of brucite, A., 1078.

See also Pire, L. R.

Garrigue, H., ultra-rapid spectrograph at the Pic du Midi, A., 399.

See also Cabannes, J.

Garrison, A. D. See Texas Co. Garrison, E. R., and Turner, C. W., effect of udder irrigation and milking interval on milk secretion, A., 1013.

Garrison, J. N. See Stone, F. W.

Gartman, E. See Cantarow, A. Gartner, W., [shaped] cement products, (P.), B., 149.

Gartz, C. See Euler, H. von. Garve, T. W., factory experiences in deairing, B., 1153.

Garven, H. S. D. See Benedict, F. G. Gary, W. W., and Gasoline Products Co., treatment of hydrocarbon oil, (P.), B., 1191.

and Middleton, C. O., treatment [refining] of petroleum, (P.), B., 261.

Gas Chambers & Coke Ovens, Ltd., and Bowater, N. J., coke, gas, and byproducts, (P.), B., 678.

and Kemp, A. V., production of coke, gas, and by-products at low or intermediate temperatures, (P.), B., 179, 967. Kemp, A. V., and Ritson, F., carbonising

chambers, ovens, or retorts, (P.), B.,

Lymn, A. H., and Kemp, A. V., [tiling of walls of] carbonising chambers, etc., (P.), B., 584.

Gas Light & Coke Co., and Griffith, R. H., conversion of carbon disulphide into sulphur, (P.), B., 932.

Hollings, H., Griffith, R. H., and Bruce, R. N. B. D., removal of sulphur com-

pounds from gases, (P.), B., 1031. Hutchison, W. K., and Hopton, G. U., removal of sulphur compounds from gases, (P.), B., 485.

and Nichols, J. A., controlling temperature in horizontal gas-retort settings, (P.), B., 85.

and South Metropolitan Gas Co., generation of hydrogen sulphide in waterscaled gasholders, B., 5.

Gas & Protection, [pleated cylindrical paper] filters for gases, particularly gas-mask filters, (P.), B., 1134.

Gasenko, G. G., and Blagovestova, N. P., pigment metabolism during and after a fifty-day period of starvation, A., 886. Gaskell, J. P. See Schonland, B. F. J.

Gasoline Antioxidant Co. See Fischer, H. G. M., Rogers, T. H., and Wilson, R. E. Gasoline Products Co., Inc. See Atwell, H. V., Black, J. C., Cross, W. M., Gary, W. W., Hargrove, G. C., and Sullivan, P. H.

Gaspar, B., sensitisation of photographic silver halide layers incorporating colouring matter, (P.), B., 253. Coloured colloid layers, (P.), B., 349. Multi-colour photographic materials, (P.), B., 621, 668. Colour photographs, particularly kinematograph films, (P.), B., 668. Colour photography and kinematography, (P.), B., 668. Coloured photographic materials, (P.), B., 668. Photographic lightsensitive material for production of coloured photographs, (P.), B., 763. Light-sensitive material for colour photography, (P.), B., 1021.

Gaspari, H. See Weinrich, W. Gassman, F. K. See Lewy, F. H. Gassmann, A. See Rupe, H.

Gassner, G., and Goeze, G., determination of assimilable nitrogen in soil, B., 514.

Gastell, A., compensation method simultaneous measurement of ionisation collisions and intensity of cosmic rays, A., 133. Ionisation collisions of cosmic rays, A., 133.

Gastev, J., and Fedorova, M. S., electrodes for molting glass in an cleetric furnace, B., 543.

Gataullin, S. G., cryolite from poor ores,

Gatensbury, F. G., and Boycott, J. H., [apparatus for] glazing of bricks, tiles, etc., (P.), B., 498.

Gates, R. M., and Superheater Co., heat-

transfer element, (P.), B., 128. Gates, W. E. F. Sec Imperial Chem. Industries.

Gatovskaja, T., and Vassiliev, P., activity of ions in colloidal solutions. II. Suspension effect in ultrafiltration and centrifuging of negative colloids, A., 1461.

See Rabinovitsch, A.J., and Vassiliev, P.Gattiker, D. C. See Mann, F. G.

Gatto, I., and Melodia, G., corpuscle resistance and bilirubinæmia in young mammals with trychophytia after slow dosage with thallium acetate, A., 354.

Gatty, O., surface phenomena; films, A., 1458.

and McKay, H. A. C., electrocapillarity. V. Definition of surface tension, A., 1196. See also Craxford, S. R.

Gatty-Kostyal, M., and Tesarz, J., nuclcic acid of ergot of ryc. II., A., 1037. Gaubatz, E. See Steininger, H.

Gaubert, \overline{P} ., microchemical determination [detection] of cholesterol, carbamide, glycerol, etc., based on formation of liquid crystals, A., 219. Production of calcium sulphate hemilydrate in the wet way, and polymorphism of anhydrous sulphate, A., 438. Liquid crystals of some cholesterol compounds, A., 467. Modifications of the crystal faces of uric acid by addition of dyes to the motherliquor, A., 668. Permanent anisotropy of window glass, B., 276.

Gauchmann, S. See Roiter, V.

Gaudenzi, N., volumetric determination of lime and magnesia in soil, B., 805.

Gaudian, B. See Darapsky, A.

Gaudin, A. M., flotation of hæmatite, (P.), B., 280. and Schuhmann, R., jun., action of potas-

sium n-amylxanthate on chalcocite, A., 424.

Gaudin, M. O., toxic action of pyrethrins on marine animals, A., 240.

Gaul, control of silky bent grass (Apera spica venti), B., 423.

Gaul, M. Sco Mecano G.m.b.H. Specialartikel für Kraftfahrzeuge.

Gauler, O. Seo Kneser, H. O.

Gaulrapp, K., electrical properties of the interrupted arc, A., 538.

Gault, H., and Beloff, E., thermal decomposition of esters in presence of âluminium chloride, A., 454.

and Germann, $L. A., \beta$ -methylenebutanγ-on-α-ol, A., 1382.

and Wendling, T., ketolic condensations of ethyl acetoacetato with acetald ϵ -hyde, A., 590. Acetolic condensations of ethyl acetoacetate with acetaldehyde, A., 706.

Gaumé, J. See Bailly, O. Gaunt, R., and Tobin, C. E., lactation in adrenalectomised rats, A., 1425.

Gaunt, W. E., and Wormall, A., action of phenylcarbimide on insulin. II. Chemistry of insulin and its phosphate lowering power, A., 1564. Gaus, G. E. Sco Bennett, C. A.

Gauschemann, A. B., wax-sweating ovens, (P.), B., 1139.

Gause, G. A., stereoisomeric nature of oxidation and fermentation, A., 1416.

Gause, G. R., preparation of specification for high-early-strength Portland cement, B., 193.

Gautheret, R., metallic heating resistances, B., 417.

Gauthier, G. G., conductivity of superpurity aluminium: influence of small metallic additions, B., 996.

Gautier, J. A., precipitation of tin and antimony salts by organic bases in presence of potassium iodide: analytical characterisation of these metals, Å., 580.

See also Boutaric, A.

Gautier, M., vegetable oils and Diesel motors, B., 866.

Gautier, Marcel, tectonics of the Nemours region, A., 1087.

Gautrelet, J., choline in the animal organism, A., 879.

Broun, D., Scheiner, H., and Corteggiani, E., characterisation of the sympathomimetic and parasympathomimetic substances in blood by dialysis in vivo, A., 890.

and Halpern, N., antagonism between nicotine and some quaternary hexamethylenetetramine iodides; curare poisons, A., 376.

See also Corteggiani, E.

Gautsch, M. C., draining of ground-coat enamels for sheet steel, B., 234.

Gautsche, A.J., printing ink, (P.), B., 1109. Gauvin, D. See Risi, J.

Gauzit, J., visual spectroscopic study of

atmospheric ozone, A., 48. Gavat, I. See Nenitzescu, C. D.

Gaverdovskaja, M. V. See Borissov, P. P. Gaviola, E., and Strong, J., photo-electric effect of aluminium films evaporated in vacuum, A., 539.

Gavrilenko, E. S. See Mintz, I. B. Gavrilov, N. I. See Balabucha-Popzova, V. S.

Gavrilova, E.J. See Ivanuikov, P.J.Gawler, C.J., rapid determination of fat in cocoa products, B., 473.

Gawlick, H., twin calorimeter for small heat effects, A., 954.

Gawrych, S. See Krause, A.

Gay, H. See Krueger, Hugo, and Law, J.L.

Gay, L., stability of a surface of contact between two phases; concept of epiphases in mutual equilibrium; new enunciation of the phase rule, A., 1064. Gay, P. F., and Travers, M. W., influence

of nitric oxide on thermal decomposition of dimethyl ether; gaseous cata-

lysis, A., 1346. Gay, P. J., varnish making, B., 243.

Gayet, R., and Guillaumie, M., action of curare and atropine on secretions of the

pancreas, A., 240. Gayford, E. See Brit.-Geco Eng. Co.

Gebhard, K., and Schrader, H., step-wise hardening [of steels] and its practical applicability, B., 547.
Gebhardt, H., fate of senna drugs in the

organism, A., 1548.

See also Straub, IV.

Gebhardt, Hans. See Meuwsen, A.

Gebhardt, K., extraction of organic materials, (P.), B., 352.

Gebler, I. V., determining degree of softening of bituminous coals when heated, B., 258.

Gebsattel, K. F. von, promotion of fer-

mentations, (P.), B., 470. Geddes, J. A., and Kraus, C. A., electrosolutions. XVIII. Molecular lytic polarisations and polar moments of electrolytes in benzene solutions, A., 561. Geddes, S., conductivity of a freshly broken

glass surface, B., 642.

Geddes, W. F., and Aitken, T. R., experimental milling and baking technique requiring 100 grams of wheat, B., 216. and Frisell, B., experimental flour mill for 100-gram wheat samples, B., 216.

Larmour, R. K., and Malloch, J. G., variability in experimental baking. II. Influence of mechanical moulding in reducing variability in loaf volume between laboratories, B., 425.

and Lehberg, F. H., flax studies. I. Relation between weight per measured bushel, weight per thousand kernels, and oil content of flax seed. II. Refractometric method for determining oil content of flax seed, B., 334.

See also Binnington, D. S., and Kent-Jones, D. W.

Gedeon, T., copper occurrence in Studene,

S. Serbia, A., 958. Gee, F. See Imperial Chem. Industries.

Gee, G., polymerisation in monolayers, A., 298. Reactions in monolayers of drying oils. II. Polymerisation of the oxidised forms of the maleic anhydride compound of \beta-classtcarin, A., 434. Kinetics of polymerisation processes. II., A., 570. Surface phenomena; films, A., 1458.

and Rideal, E. K., reactions in monolayers of drying oils. I. Oxidation of the malcic anhydride compound of β-elæostearin, A., 434. Kinetics polymerisation processes. III. Effects of catalysts and inhibitors, A., 570.

Gee, W. P. See Texaco Development Corp., and Texas Co.

Geel, W. C. van, Emmens, H., and Radio Corp. of America, dry-plate rectifier, (P.), B., 797.

See also Emmens, H., and N. V. Philips' Gloeilampenfabr.

Geens, J. See Branden, F. van den. Geer, M. R. See Yancey, H. F.

Geer, W. C., treatment of colloidal [rubber] surfaces, (P.), B., 1009. See also Baymiller, J. W.

Geerligs, H. C. P., purification of [sugar-] cane juices, B., 211.

" compound " W., Claassen's multiple-effect evaporator, B., 672.

Geffcken, H., abnormalities in characteristic of vacuum photo-cells, A., 445. Geffcken, W., [refractometry], A., 1322.

See also Berger, Edwin.

Géhéniau, J., proper mass of the photon and the electromagnetic tensor, A., 543.

Gehlhaar, E. See Kindler, K. Gehm, H. W. See Rudolfs, W.

Gehman, S. D., and Osterhof, II. J., Raman spectrum of rubber and related hydrocarbons, A., 407. See also Ward, J. S.

Gehrke, A. See Schmalfuss, H.

Gehrts, A., thermionic emission and electronic conductivity of solids, A., 129. Gei, V., and Truten, I., photo-effect at thin adsorbed layers of alkali metals, A., 539.

Geib, K. H., water vapour discharge and hydrogen peroxide formation, A., 942.

and Bonhoeffer, K. F., incorporation of deuterium into living organisms. III., A., 639.

and Lendle, A., rate of reaction of deuterium with iodine, A., 939.

Geib, M. N. V. See Weber, C. G. Geidel, W. See Lücke, F.

Geier, C., Zwehl, W. von, and Helling, W., temperature-announcing colours in aluminium switching plants, B., 936.

Géigel, A. R., effect of boron on growth of certain green plants, A., 1432.

Geiger, A., rôle of glutathione in anaërobic tissue glycolysis, A., 237.

Geiger, C. F., and Carborundum Co., ceramic ware, (P.), B., 695. Geiger, E., action of adrenaline on liver

suspensions, A., 116. [with Halmos, H.], influence of insulin

on liver-glycogen level of frogs, A., 386. See also Alwall, N.

Geiger, H., and Zeiller, O., frequency and intensity of cosmic-ray bursts from lead, A., 7.

Geiger, O. See Schild, E. Geiger, W. G., conversion of unmatured spirits into brandy or whisky, (P.), B.,

Geigy Aktien-Gesellschaft, J. R., [dyes for] through-dyeing of leather, especially chrome leather, (P.), B., 163. Stabilisation of aqueous bitumen emulsions, (P.), B., 180. Mercerising liquors, (P.), B., 189. Bituminous constructional materials, (P.), B., 195. Disazodyes, (P.), B., 267. Coating preparations, (P.), B., 287. Basic chromium sulphate free from iron, and solutions thereof, (P.), B., 407. [Chromable o-hydroxy]azo-dyes, (P.), B., 827. Monoazo-dyes, (P.), B., 876. Dyeing of leather, (P.), B., 882. [Chromable] azo-dyes, (P.), B., 923.

Geigy Aktien-Gesellschaft, J. R., dyeing of leather [with monoazo-dyes], (P.), B., 983. Production of dyeings and printings on cellulose esters and ethers, (P.), B., 1089. Coloured lacquers, (P.), B., 1218. See also Agthe, C. A.

Geigy, J. R., Soc. Anon. See under Geigy Akt.-Ges., J. R.

Geiling, E. M. K., and Lewis, M. R., melanophore hormone of the hypophysis cerebri, A., 526.

Geilmann, W., and Meyer-Hoissen, O., micro-analysis of glass. V. and VI. Detection of minute amounts of cobalt and nickel in glass. VII. Detection and determination of gold, B., 192, 543.

Geisler, W., dust in Mansfeld lung affec-

tions, A., 1542.

Geissler, W., and Kleinert, H., determination of the breaking value of road emulsions, B., 596.

Geitler, L., flower colouring by a membrane pigment in Leonotis, A., 651.

Geldbach, W. See under Geldbach, W.,

Fabr. für Bergwerksbedarf. Geldbach, W., Fabrik für Bergwerksbedarf, and Thimm, C., porous filling masses for reservoirs for containing gases, (P.), B., 49.

Gelderman, L. S. See Gintzburg, J. S.

Geldof, H. See Wibaut, J. P.

Gelfan, S., effect of viosterol on oxygen consumption of frog's muscle, A., 508. Geliman, N. D. See Zelenetzki, M. S.

Gelin, E. See Kling, A.

Geliperin, N. I., and Usjukin, I. P., thermodynamic characteristics of the processes of liquefaction of gases, B., 1. Gell, P. V. W. See Brit. Heat Resisting Glass Co.

Geller, L. W., waxes in the candle industry,

Geller, R. F., and Bunting, E. N., system K₂O-PbO-SiO₂, A., 1464. See also Ewell, R. H.

Geller, IV., formation of spherical cutectic inclusions in alloys, A., 420. Formation of N₂O₃ by reduction of nitric acid with aluminium, A., 946. M.B.V. treatment of heat-treated aluminium alloys, B., 1160. Formation of protective films on magnesium-aluminium alloys, B., 1160.

Gellhorn, E., value of carbon dioxide in counteracting oxygen lack, A., 889. Effect of oxygen lack, variations in the carbon dioxide content of the inspired air, and hyperpnæa on visual intensity discrimination, A., 1398.

and Spiesman, I. G., influence of hyperpnœa and of variations of oxygen and carbon dioxide tension in inspired air on hearing, after images, and nystagmus, A., 220.

Gellis, S. S., and Clarke, G. L., organic matter in dissolved and colloidal form

as food for Daphnia magna, A., 368. Gelman, I., poisoning by vapours of beryllium oxyfluoride, A., 1417.
Gelman, R. M. See Palladin, A. V.

Geloso, M., mechanism of electrolysis of manganese salts, A., 942. and Rouillard, (Mlle.) C., electrolysis of

manganous salts, A., 807. Gelstharp, F., and Pittsburgh Plate Glass Co., X-ray-absorption glass, (P.), B.,

Geltsehinskaja, R. B., and Bordunova, M. A., breeding of coumarin-free clover, A., 766.

Geltzer, F., Rubintschick, J., and Lasukov, J., constitution of organic matter in soil, B., 164.

Gemant, A., investigations on electrets, A., 12. Complex viscosity, A., 21. Absorption of air by mineral oils, B., 435. Composition and [electrical] conductivity of oils and waxes, B., 1077. Rapid measurement of the oxidation of insulating oils in air, B., 1188.

Gemert, A. van. See Clay, J.

Genmill, C. L., utilisation of carbohydrate during aërobic activity in isolated frogs' muscle, A., 236. Respiratory metabolism of stimulated frog's muscle, A., 1408. Gemsa, H. See Thiel, A.

Genard, J., effect of a magnetic field on absorption spectrum of diatomic sulphur

molecules, A., 537.

General Cable Corporation. See Schatzel, R.A.General Chemical Co., and Bachman, P. W., dearsenication of sulphuric acid, (P.), B., 1091.

and Benjamin, C. S., coloured [insecticidal] salts [sodium fluoride], (P.), B., 1037.

Burgoyne, W. J., and Cordy, H. J., apparatus for roasting fines, (P.), B., 1100.

and Carter, B. M., purification of [sulphur burner] gases, (P.), B., 1207.

and Cummings, T., [vanadium oxide] catalyst, (P.), B., 988.

and Melendy, J. G., purification of [roaster] gases [from hydrogen fluoride], (P.), B., 1036.

and Merriam, H. F., sulphuric acid, (P.), B., 641, 1036.

and Scott, G. L., apparatus for manufacture of aluminium sulphate, (P.), B., 145.

Shinn, J. V., and Cummings, T., acid compositions [for glass etching], (P.), B., 835.

and Taylor, G. E., adsorbent [silica], (P.), B., 233.

and Wollner, H. J., purification of oils,

(P.), B., 261.
Wollner, H. J., and Taylor, G. E., [silicious] adsorbent, (P.), B., 932.

See also Dickson, W. M. Gen. Electric Co., glass envelopes for alkali-vapour electrical-discharge de-

vices, (P.), B., 409. and Andrews, M. R., electric incan-descence lamp, (P.), B., 1002.

and Auerbach, R., production of ions in air or other gas, (P.), B., 1003. and Barringer, L. E., abradant material,

B., 276.

and Blau, F., incandescence lamp, (P.), B., 1002.

Breadner, R. L., and Pearce, A. G., electric-discharge tubes, (P.), B., 241. and Brophy, D. H., alkali-metal [cæsium]

alloy, (P.), B., 647. and Clark, F. M., dielectric compositions, (P.), B., 460. Filtering apparatus, (P.), B., 962. Insulating and cooling composition for electric devices, (P.), B., 1001. Snuffer composition, (P.), B., 1001.

Clark, F. M., and Kutz, W. M., halogenated polyphenyl ketone [benzophenone], (P.), B., 875. Halogenated material [diphenylmethane], (P.), B.,

Dahl, Otto, and Pawlek, F., improving magnetic properties of iron and iron alloys, (P.), B., 152.

Gen. Electric Co., Dahl, Otto, and Pfaffenberger, J., magnetic [copper-nickel-iron]_material and its [heat] treatment, (P.), B., 416.

Dudding, B. P., and Pitkin, W. R., tungsten wire, (P.), B., 1212. and Faus, H. T., permanent magnets,

(P.), B., 504. Fonda, G. R., and Young, A. H., operation of vapour electric lamps, (P.),

and Francis, V. J., electric-discharge devices, (P.), B., 605.
Francis, V. J., and Ryde, J. W., electric-

discharge devices; [metal-vapour lamp], (P.), B., 748.

and Fuwa, K., ultra-violet [light-] transmitting glass, (P.), B., 103.

Fuwa, K., and Suzuki, F., ultra-violet ray-transmitting glass, (P.), B., 320. Brown glass batch, (P.), B., 933.

Gaidies, G., and Reger, M., gaseous electric-discharge devices [metal-vapour lamps], (P.), B., 26.

Gaidies, G., and Rompe, R., gaseous electric-discharge device, (P.), B., 556. Gaidies, G., Tarján, E., and Thomas, Max, gaseous electric-discharge devices

[metal-vapour lamps], (P.), B., 26. and Gallizia, E., joining or uniting metal parts [with vitreous insulating material], (P.), B., 1102.

and Harrington, R. H., [clectrical] insulating material, (P.), B., 333.

and Harty, E. A., [copper oxide] electrical cut-outs, (P.), B., 333. Rectifier unit for electrolysis control, (P.), B., 1002.

and Humberstone, J. H., welding electrode, (P.), B., 699. [Are-]welding electrodes, (P.), B., 940.

Jenkins, H. G., and Ryde, J. W., electricdischargo devices [lamps], (P.), B.,

and Kaimer, F. R., electrical cable, (P.), B., 556.

and Kleeman, R. D., [alkyd] synthetic resin, (P.), B., 1007. and Lair, W. B., [arc-]welding electrodes,

(P.), B., 940.

and Lambert, B. V., centrifugal separators, (P.), B., 81.

and Miller, V., arc-welding flux, (P.), B., 281.

Millner, T., and Tury, P., large-crystal metal [tungsten] bodies, (P.), B., 999. and Müller, Robert H., electrical insulation, (P.), B., 1001.

and Nordstrand, R. D. van, [annealing] furnace, (P.), B., 698.

and Otis, A. N., heat-treating, (P.), B., 998.

Otis, A. N., and McFarland, J. L., annealing furnace, (P.), B., 552.

Ramsay, H. T., and Rooksby, H. P., thermionic cathodes, (P.), B., 418. and Rees, R. W., dry-plate rectifiers, (P.), B., 203.

Rees, R. W., and Smithells, C. J., powdered metals [of low m.p.], (P.), B.,

and Ruder, W. E., manufacture of permanent magnet [from aluminiumcobalt-nickel-iron alloy], (P.), B., 27.

and Rupp, E., electric current rectifiers, (P.), B., 26. Electric radiation indicator, (P.), B., 157.

Sehröter, K., Agte, K., Moers, K., and Wolff, H., sintered hard metal alloy, (P.), B., 1048.

Gen. Electric Co., and Sherwen, J. W., electromagnetic driving means for concentrating, sifting, convoying, moulding, pulverising, crushing, and similar apparatus, (P.), B., 304. and Simms, C. H., photo-electric cells,

(P.), B., 333.

and Smithells, C. J., massive bodies of density greater than that of lead [for absorption of penetrating radiating], (P.), B., 1048.

and Stansel, N. R., electric [arc-]furnace system, (P.), B., 65. Electric-heating resister and mounting therefor, (P.), B., 1001.

and Stone, F. L., gas detector, (P.), B.,

and Sykes, W. P., increasing strength of alloys; [precipitation-hardening of cobalt-tungsten steel], (P.), B., 376.

and Taylor, G. F., apparatus for sintering refractory material, (P.), B., 991.

and Thompson, W. G., electric-arc converters, (P.), B., 747.

and Valentine, I. R., short-cycle anneal of malleable iron, (P.), B., 842.

and Waldram, J. M., photometers, (P.),

B., 131. and Waymark, D. H., separators or classifiers for ore pulp, etc., (P.), B., 816.

and Weaver, W. E., [wire-coating] furnace, (P.), B., 998.

and Weed, J. M., welding electrode, (P.), B., 65. [A ferrous metal] welding

electrode, (P.), B., 604. and Westell, E. P. L., electric thermostats, (P.), B., 1001.

and Whitney, W. R., moisture indicator, (P.), B., 817. and Wiegand, K., electric [ultra-violet]

radiation device, (P.), B., 107.

Wilkins, G. J., Cheltnam, C. H. W., and Cheltnam, C. H., centrifugal separators, (P.), B., 432.

and Wilson, F. P., jun., metallurgical furnace gas and method of controlling composition, (P.), B., 503.

and Wood, H. L., separation of coal, etc., (P.), B., 436. Separation of materials of different sp. gr., (P.), B., 1072. and Yamashita, N., [tungsten] leading-in

wire [for rectifying valves], (P.), B.,

and Zabel, W. P., treatment of [incandescence lamp] filaments, (P.), B., 1052. Treatment of [incandescence lamp] leading-in wire, (P.), B., $105\hat{2}$.

See also British Thomson Houston Co. Gen. Electric Vapor Lamp Co. See Foulke, T.E.

Gen. Engineering Co. (Radcliffe), Ltd., Taylor, S., and Johnson, R., impregnation of articles with solutions in volatile distillable solvents, (P.), B., 400.

Gen. Household Utilities Co. Sec Kenney, M. W.

Gen. Machine Co. See Muench, F. J. Gen. Manganese Corporation. See Sweet.

Gen. Motors Corporation, [cadmium] alloys and bearings incorporating them, (P.), B., 281.

See also Almen, J. O., Bichowsky, F. R., Boegehold, A. L., Henne, A. L., Leach, A. E., Lee, C. L., McCarty, J. E., Midgley, T., jun., Phillips, W.M., Rabezzana, H., Randolph, D.W., Schluchter, A.W., and Short, C.R. Gen. Motors Research Corporation. See Boegehold, A. L.

Gen. Plate Co. Sec Davignou, E. H., and Wohrmau, C. R. E.

Gen. Refractories Co. Sco Houer, R. P.Gen. Rubber Co. See Cake, W. E., and McGavack, J.

Gen. Salt Co., Ltd. See Bierbaum, H. E. Gen. Zeolite Co., separation of suspended solids from liquid, (P.), B., 81.

See also Behrman, A. S.

Generalov, V. M. See Bespolov, I. E. Geneslay, G. See Guillot, M. Geness, S. G., and Komissarenko, V. P. physiological variations of the bloodsugar level in rabbits and dogs, A., 1008.

Genevois, L., succinic acid and glycerol in alcoholic fermentation, A., 639. Collection of resin under the influence of acids, B., 1056.

and Dufrenoy, bacterial decomposition of lignified residues, B., 1034.

Génin, G., corrosion of metals in manufacture of condensed milk, B., 216. Use of rubber in the dairy industry, B., 520. Wooden vessels for milk transport, B., 1229.

Gente, E., flue-gas corrosion, B., 863.

Genter, A. L., treatment of sewage sludge, (P.), B., 126. Multivalent electrolytes, (P.), B., 939.

Gentner, F., evaluation of creep tests, B., 600.

Gentner, K., and Rollwagen, W., depth distribution of energy absorbed from cathode rays by aluminium, A., 543.

Gentner, W., magnitude and composition of absorption coefficients of hard y-rays, A., 131. Scattered and secondary radiation of hard γ-rays, A., 918. See also Bothe, W., and Fleischmann, R. Genung, L. B. See Busch, K. G. A.

Genz, F. W., and Virginia-Carolina Chem. Corp., [fertiliser containing] available phosphoric acid and less common

elements, (P.), B., 900. Geoffroy, R., fermentable carbohydrates in wheaten flours in relation to bread-making, B., 73. Sugar content and alcoholic fermentation of wheat flour, B., 1014.

George, A. See Reed, R. F. George, E. See Greisheimer, E. M. George, H. S., and Electro Metallurg. Co., cold-rolled iron-chromium alloy article, (P.), B., 280.

See also Osweld Railroad Service Co. George, W. H., production of polarised X-rays, A., 1438. Surface markings on a diamond, A., 1483.

Georges, L. W. See Wolfrom, M. L. Georgescu, (Mlle.) E. See Maxim, N. Georgescu, I. D. See Cella, C., and Nitzescu, I. I.

Georgi, C. D. V., composition of carpet

grass from Serdang, B., 1060. [with Ryrie, G. A.], preparation [and therapeutic use] of refined calo-phyllum oil, B., 379.

Grieg, J. L., and Teik, G. L., varietal and manurial trials with derris, B., 852. Lambourne, J., and Teik, G. L., selection

experiments with derris, B., 1061. Georgi, C. E., influence of carbohydratenitrogen relation on nodule production by red clover, A., 393. Georgi, G. W. Seo Carbide & Carbon

Chemicals Corp.

Georgiev, A., and Aerovox Corp., electrolytic cell [condenser], (P.), B., 747.

Georgievski, E. See Severin, S.

Gephart, O. P., and Meincke, H. D., paper, (P.), B., 637. Calcium sulphates, (P.), B., 641.

Gérard, F. See Estienne, V.

Gérard, M. See Dufraisse, C. Gerard, R. W. See Engel, G. L., and Kharasch, M.S.

Gerasch, E., and Krupp Grusonwerk A.-G., F., grinding mill, (P.), B., 672.
Gerasimov, A. F., independent com-

ponents in the phase rule, Λ ., 290.

and Kozuirev, B. M., kinetics of reduction of bismuth chloride, by hypophosphorous acid in aqueous solutions, A., 164. Water-soluble colloidal lead, A., 286.

See also Vozdvischenski, G. S.

Gerasimov, P. D. See Palma, T. S. Gerber, A. B., and Swann Res. Inc., laundry sour composition, (P.), B., 492.

Gerbis, H., chronic carbon monoxide poisoning, A., 635.

Gerdes, P. E. See McIntyre, G. H.

Gerding, H., and Moerman, N. F., Raman spectrum of the ice-like form of sulphur trioxide, A., 922.

and Nijveld, W. J., Raman spectrum of gaseous and liquid sulphur dioxide and its solutions in water, A., 922.

Nijveld, W. J., and Muller, G. J., Raman effect of gaseous and liquid sulphur trioxide and of mixtures of the trioxide with the dioxide, A., 922. Gerecs, A. See Zemplén, G.

Gergely, K., aliphatic amino-content of oxyhæmoglobin of animals, A., 355.

Gerhardt, F., and Ezell, B. D., sugar and acidity changes in pears as influenced by variety and maturity, B., 1123.

Gericke, H., determining the Volta effect,

Gericke, S., and Pfarre, E., calculation of effect of nutrients in manurial trials, B., 562.

See also Wilhelmj, A.

Gerischer, W. See Negelein, E. Gerke, R. H. See Rainer, E. T.

Gerlach, A., and Hocheisel, W., cell-drum suction filters, (P.), B., 400.

Gerlach, M., is the [manurial] action of superphosphate more rapid than that of basic slag? B., 384. Liquid-manure pits; treatment and application of liquid manure, B., 950. Borax-phosphate fertiliser for beets, B., 1061.

Gerlach, R. G., removal of carbon deposits from engine parts, (P.), B., 628.

Gerlach, Waither, spectral analytical investigations, A., 176. Relation of spontaneous and true magnetisation to [optical] emissivity, A., 275. Compensation of nickel-beryllium alloys, A., 559. Magnetic investigations of [precipitation-] hardening of beryllium-nickel alloys, A., 1061. Practical importance of spectroscopic micro-analysis, B., 719. Magnetic properties of hardened nickel-beryllium alloys, B., 1158.

See also Auer, H., and Ganz, E. Gerlach, Werner, copper content of human tumours in relation to that of the liver, A., 1539.

See also Edibacher, S.

Gerling, E. K., evolution of helium from the earth, A., 447.

Gerloff, G., changes in magnetisation of nickel and permalloy and of nickeliron crystals in high fields, A., 785.

Gerloff, G., and Löwe, E., iron-free coil for production of maintained intense magnetic fields, A., 446.

Germain, L., stability of dilute solutions of sodium hexametaphosphate, B., 1206. Germain, (Mllc.) Y. Sco Quelet, R.

German, W. L., Jeffery, G. H., and Vogel, A. I., dissociation constants of organic acids. XIII. Primary and secondary constants of cyclic 1:1-dicarboxylic acids, A., 159.

and Vogel, A. I., primary and secondary dissociation constants of malonic, succinic, and glutaric acids by potentiometric titration, A., 1339.

Germann, A. F. O., and S. M. A. Corp., vitamin-containing material, (P.), B.,

Germann, L. A., condensation of acctone with formaldehyde, A., 1490. See also Gault, H.

Germer, E. See Spanner, H. J.
Germer, L. H., "extra" electron diffraction rings, A., 17. Diffuse rings produced by electron scattering, A., 274. Electron diffraction experiments on crystals of galena, A., 1451.

See also Storks, K. H.

Germscheid, J. See Darapsky, A. Gernes, D., electrolyte for deposition of copper and copper alloys, (P.), B., 26.

Gernet, D. V. See Adadurov, I. E. Gernet, H. J. M. von, crushing and grind-

ing mills, (P.), B., 577. Gernez, C. Sec Polonovski, Michel.

Gerö, L., carbon monoxide bands $A^1II \rightarrow X^1\Sigma$ (IV Pos.). I. and II., A., 661, 920. Rotation analysis of the (1, 0) $b^3\Sigma \rightarrow a$ - Π carbon monoxide

band, A., 1177. See also Schmid, R.

Gerovitsch, M., and Frumkin, A., surface forces at the gas-liquid interface. VI. Determining the potential difference at still surfaces, A., 155. Electrical properties of films of ω-bromohexadecoio

acid, A., 1335. Gerrard, W., interaction of alkyl chlorosulphinates and pyridine in ethereal

solution, A., 862.

Gerretsen, F. C., katadyn process for sterile cultures of higher plants, A., 121. Field trials of lucerne yields after inoculation with bacterial preparations, B.,

Gerritsen, D.J., disintegration and solution of cellulose in concentrated solutions of

salts, B., 735. Gerritz, H. W., extraction of pectin from apple thinnings, B., 169. Prevention of foaming in crude-fibre determinations, B., 251.

and St. John, J. L., determination of protein-nitrogen, A., 219.

Sec also Frost, C.

Gerschenovitsch, S. S. See Fomin, S. V. Gerschman, R., and Marenzi, A. D., hypocalcamia of depancreatised dogs, A., 116. Action of alkaline anterior pituitary extract on mineral substances of the plasma, A., 251.

Gerschson, A. I. See Kuhlmann, A. G. Gerschzon, G. I., nitro-amino-hydroxyderivatives of benzene, A., 980.

and Berenschtein, G., de-ethylation of diethylamline, A., 837.

and Lastovski, R. P., arsenie-containing azo-dyes from 4-aminodiphenyl-4'-arsinio acid, A., 491. Catalytic synthesis of diphenylamine, A., 837.

Gersdorff, IV. A., toxicity of optically active and inactive dihydrodeguelins, A., 108.

Gersh, I., site of renal elimination of hæmoglobin in the rabbit, A., 1409.

Gershinowitz, H., free energy and rate of chemical reactions; relation between rate and oxidation-reduction potentials, A., 939.

See also Eyring, H.

Gershon, S. See Clark, A. H. Gerssen, J. N., determination of wearresistance of sole leather. I.—III., B., 209, 421. Machine for determining the wearing properties of sole leather, B., 1058.

Gerstel, G., dust-affected lungs. II. Silica and titanium contents of lungs from 100 cases of dust affection, A., 1542.

Gerstenberger, H. J., Horesh, A. J., Van Horn, A. L., Krause, W. E., and Bethke, R. M., antirachitic cow's milk; antirachitic value of irradiated cow's milk and milk produced by cows fed with

irradiated yeast, A., 647.

Gerstley, J. R., Penruddocke, E., and Lawrence, G., β -lactose: effect on the flora of the infant's stool, A., 1406.

Gerstner, F. See Bredig, G.

Gerszonowicz, S., influence of cold-work and subsequent ageing on some properties of a semi-mild steel, B., 598.

Gerth, G., and Baumgarten, A., pretreatment of magnesite deposits at Zobten, B., 317.

and Siebdrat, determination of adhesion of road tar to stones, B., 499.

Gerth, M. M. See Near, H. B.

Gertler, IV., action of the stereoisomerides of leucylglycylglycine on panercas and liver-esterase, A., 1556.

Gervais, J. A., crushers, (P.), B., 400. Gervay, V., decomposition of salts of acetyl-

salicylic acid, A., 493.

Gerver, J. See Michels, A. Gesell, E. See Zinke, A.

Gesellschaft für Drucktransformatoren (Koenemann-Transformatoren

Ges.m.b.H.), absorption-refrigerating processes, (P.), B., 2.

Ges. für Forderanlagen E. Heckel m.b.H., Vohmann, F., and Trümpelmann, E., clarification of coal slurry, etc., (P.), B., 7. Ges. für Kohlentechnik m.b.H., amino-

nitriles, (P.), B., 11.

See also Gluud, W., and Klempt, W. Ges. für Linde's Eismaschinen Akt.-Ges., enrichment of air, in particular furnace blast, with oxygen, (P.), B., 224. Obtaining illuminating gas, rich in hydrogen and practically free from carbon monoxide from solid fuels, (P.), B., 228. Production of krypton and xenon, (P.), B., 496. Washing of gases, (P.), B., 1073. Blast furnaces, (P.), B., 1161. Separation of gases, (P.), B., 1206.

and Krause, G. A., concentration of liquids [by freezing out of pure solvent], (P.), B., 1136. Resolving solutions or liquid mixtures into their constituents by cooling and crystallisation, (P.), B., 1185. Separating solutions or liquid mixtures into their constituents by cooling and crystallis-

ation, (P.), B., 1185.

Ges. für Teerverwertung m.b.H., pitch, (P.), B., 730.

Ges. zur Verwertung Chemisch-Technischer Verfahren Akt.-Ges., electrodes, (P.), B.,

Ges. zur Verwertung Fauth'scher Patente m.b.H., apparatus for dehydrating oilcontaining materials, (P.), B., 108. Edible oils and fats, (P.), B., 649. Geslin, H., Marcel, M., and Servy, J., use

of artificial farmyard manure in hot

beds, B., 115.

Gessner, O., and Esser, W., [pharmacology of] samandarine and its derivatives and fission products, A., 108.

Gesteau, P., apparatus for rapid study of absorption and rotatory power in the ultra-violet, A., 1355.

Gesuè, G. See Rossi, Giacomo. Gething, H. H. See Firth, J. B.

Getman, F. H., equilibrium in the system H₂O-MgBr₂, A., 30. Cryoscopy of solutions in formamide. I., A., 561.

Getreuer, V., and Obersohn, G., enzymic power of dead human livers and kidneys, A., 1297.

Gettler, A. O., and Siegel, H., isolation from human tissues of easily volatile organic liquids and their identification, A., 535.

Getz, C. A., and Smith, G. F., aeration process for preparation of whipped cream, B., 41.

Geutebrueck, A. See Gnertler, W.

Gevaert Photo Producten N.V., photographic developing, (P.), B., 1236.

Geveling, N. V., formation of liquid cutectic alloys, A., 1455.

Gewecke, F., extraction of aluminium from German raw materials, B., 278. Gewerkschaft Sophia-Jacoba. Sec West-

falia-Dinnendahl-Gröppel A .- G. Gex, M., variations in the ultra-violet spectrum of phenol as a function of $p_{\rm H}$,

Ā., 1048. Geyer, A., semi-continuous and continuous kilns of the chamber type, (P.), B., 694. Geyer, W. O., chemical [laboratory] apparatus, (P.), B., 1025.
Gezelius, R. A. See Briggs, C. W.

Ghaffar, A., mechanism of iodoacetate

poisoning of muscle, A., 1148. Ghaswalla, R. P., and Donnan, F. G., reaction kinetics of acid hydrolysis of

phenolic ethers, A., 1345.

Gheorghiu, C. V., and Manolescu, (MUe.) L., bromo-derivatives of 4-hydroxy-2thion-3-phenyl-1:2:3:4-tctrahydroquinazoline, A., 487. Heteropolar compounds. I. Complex halogenomercuric salts of 4-hydroxy-2-thion-3-phenyl-1:2:3:4-tetrahydroquinazoline. Coloured "carbenium" salts of halogen acids with 4-hydroxy-2-thion-(or -oxo-) tetrahydroquinazoline and with the corresponding halogenomercuri-compounds, A., 1126, 1525.

Gheorghiu, G. N., 2:2-disubstituted indandiones, A., 1508.

Ghering, L. G. See Russell, W. W. Ghersovici, I. See Ballif, L. Ghiron, D., borovanadates, A., 574.

and Mangili, G., solubility of monometric As2O3 in acids and compounds AsXO4,

Ghiron, M., oxidising enzyme, A., 636. Ghosh, A. R., and Guha, B. C., relative vitamin-C values of milk and curd, A., 530. Ghosh, B. See Chakravarti, D.

Ghosh, B. N., enzymes of snake venom. 1. Their action on hæmoglobin and on protein solutions of different p_{11} , A., 1557.

and Sinton, J. N., changes in proteins of blood-sera of monkeys infected with malarial plasmodia, A., 1015.

Ghosh, B. N. See also Das, N. B., Mukherjee, J. N., and Prosad, K.

Ghosh, J. C., Banerjee, T., and Bhatta, B., photo-oxidation of succinic acid by methylene-blue sensitised by uranyl salts, A., 688.

and Bhattacharyya, S. K., effect of simultaneous irradiation with several wave-lengths on oxidation of mandelic acid by bromine, A., 573.

Bhattacharyya, S. K., and Bhattacharyya, S. C., photobromination of acetylene dichloride in the gaseous state and in carbon tetrachloride solution, A., 688.

and Ray, B. B., oxidation of monochloroacetic acid by potassium permanganate at wave-lengths 366 m μ and 436 m μ with uranyl salt as photosensitiser, A., 572. Photochemical oxidation of mandelic acid by bromine with uranyl salts as ultra-violet sensitisers, A., 688.

Ghosh, M.N. See Sethi, D.R. Ghosh, N.P. See Ray, (Sir)P.C.

Ghosh, R., furan series. I. Synthesis of 4-2-ketotetrahydrofurylacetic acid, A.,

Ghosh, S., and Banerji, S. N., ageing of hydrosols of ferric phosphate vanadium pentoxide, A., 1200.

Ghosh, Sudhamoy, Chopra, R. N., and Dutt, A., chemical examination of the bark of

Moringa pteryosperma, A., 768. Ghosh, T. N., condensation of ω -bromoacetophenone with 3-phenyl-1-o-aminophenylthiocarbamide, A., 215. Extension of Michael's reaction. V., A., 734. Formation of heterocyclic compounds from thioacetocarbamic acid derivatives. I., A., 866. Chemistry of antimalarials, B., 395.

Giacalone, A., solubility of 6-nitro-3methylbenzoic acid in benzene, toluene, and water, A., 25. Nitration of benzoic and toluic acids, A., 69.

[with Russo, F.], synthesis of mixed acctones by means of ethyl malonate,

Giacomello, G., electrolysis of organic substances in non-aqueous media. II., A., 1091.

Sce also Ruzicka, L.

Giammona, A., and Tanteri, B., sugar content of fruit of Yucca aloifolia, B.,

Gianferrara, S. See Ajello, T.

Giani, M. See De Caro, L. Giard, E. A., and Cutler-Hammer, Inc., composition for coating electrodes [valve filaments], (P.), B., 156. Electrode for electron-discharge devices [radio-valves], (P.), B., 333.

Giarratana, J., and Brennecke, C. G., angular distribution of products of artificial nuclear disintegration, A., 265.

Giauque, W. F., and Blue, R. W., hydrogen sulphide; heat capacity and vapour pressure of solid and liquid; heat of vaporisation; comparison of thermodynamic and spectroscopic values of the entropy, A., 787. and Stout, J. W., entropy of water and

the third law of thermodynamics; heat capacity of ice from 15° to 273°

abs., A., 1058.

See also MacDougall, D. P. Gibb-Lewis Co. See Schultz, K. Gibbon, S. H. Seo Steel Bros. & Co.

Gibbons, J. J., jun. See Bartlett, J. H.,

Gibbons, P. A., and Cotton, F. H., semiebonite. II., B., 32.

Gibbons, W. A., Smith, O. H., and United States Rubber Co., styrol [styrene] from ethylbenzene, (P.), B., 443.

and United States Rubber Co., improving properties of rubber, (P.), B., 339.

Gibbons Brothers, Ltd. See Cargo Fleet

Gibbs, H. L., extraction of values from ores [carnotite], (P.), B., 789.

Gibbs, R. C., and Schoepfle, G. K., spectrum of La 111., A., 2.

See also Williams, Robley C.

Gibbs, R. E., and Tsien, L. C., production of piezo-electricity by torsion, A., 1187. See also Bates, L. F.

Gibbs, R. F., and Improved Seamless Wire Co., thermostatic material, (P.), B., 576. Gibbs & Co., T., dentifrice products, (P.), B., 1235.

Gibby, C. W., and Addison, C. C., adsorption at the interface between two fluids. Adsorption of methylene-blue, methylorange, Congo-red, and orange II at benzene-water and chlorobenzene-water interfaces. II. Adsorption of five dyes at a paraffin-water and at an air-water interface, A., 283, 1334.

Giblin, J. C., and Chapman, G., detection

of nitrites, A., 1478.

Gibson, A. R., and Nat. Smelting Co.,
extraction of substances from [and by] liquid media, (P.), B., 256.

See also Nat. Processes, Ltd.

Gibson, C. S. See Burawoy, A.
 Gibson, G. E., and Rice, O. K., electric moment of the ¹Σ₊ to O⁺ transition in the continuum of Cl₂, A., 1167.

Gibson, H. B., works tests on benzol yields and laboratory tests on coal for carbonis-

ation, B., 530.

Gibson, J., industrial disinfectants, B., 350. Gibson, K. E., and Iredale, T., photodecomposition of iodoform and of alkyl and alkylene iodides, A., 437.

Gibson, R. B. See Clark, B. B. Gibson, R. O. See Imperial Chem. Industries, and Williams, E. G.

Gibson, T., urea-decomposing microflora of soils. I. Description and classification of the organisms. II. Numbers and types of organisms as shown by different methods, B., 114.

Gibson, W. A., and Doss, J. H., effect of iron impurities on annealing of high

brass, B., 1210.

Gibson, W.H., separation of flax fibres from

the plant stem, B., 1034.

Giddings, H. A., and Cront, P. D., application of kinetic theory to the problems of evaporation and sublimation of gases having more than one atom per molecule, A., 1191

Giedroyć, W., Cichocka, J., and Mystkovski, E. M., chemical groups of proteins which possess affinity for polysaccharides. VII. Nature of the polysaccharideguanidine complex, A., 90.

Gielessen, J. See Grüneisen, E. Giertz, A. See Enocksson, B.

Gierut, J. A., Sowa, F. J., and Nieuwland, J. A., organic reactions with silicon compounds. I. Use of silicon tetrafluoride in formation of esters and absorption reactions. II. Reaction of silicon tetrafluoride with Grignard reagent, A., 830, 974. Giese, E. See Lottermoser, A. Giese, M. See Ruff, O.

Giesecke, F., and Leseh, W., effect of a copper-containing ground limestone on plant production, B., 612.

Giessen, replacement of lead baths by salt baths [in metal-hardening], B., 197.

Giessmann, W., knock-resistance of light motor fuels, B., 1077.

Gietz, C. E., and Sá, A., analytical applications of 8-hydroxy-5-methylquinoline,

Giffen, H. J. van, determination of essential oils in solutions of spirit, B., 715. Examination of Sanatogen and similar

preparations, B., 858.

Gifford, H. W. F., heat treatment of coal and oil mixtures and distillates obtained therefrom, (P.), B., 678. Conversion of mineral oils into oils of lower b.p., (P.), B., 680. [Bauxite] catalyst [for oil-cracking], (P.), B., 1038.

Gigli, T., addition of iodine to foods, B., 1124. Gilard, P., and Dubrul, L., dimensions of aggregates in siliceous glasses at high temperatures, B., 496. Coloration of glass by staining. III., B., 1152. Dubrul, L., Henry, G., Scohy, and Piéret, viscosity of glass. I. and II., B., 594,

1040.

Gilbart, K. C. See Stansfield, E.

Gilbert, A. C., Arnold, A. A., and Gilbert Co., A. C., mixing apparatus, (P.), B., 400. Gilbert, B. E., and Pember, F. R., use of seedling plants to determine soil-nutrient deficiencies, B., 514.

Gilbert, C., band spectra of PH and NH, A., 661.

Gilbert, C. B. See Hercules Powder Co. Gilbert, C. G., and Research Corp., spherulising fusible, pulverisable filler materials, (P.), B., 129. Portland cement product, (P.), B., 276.

Gilbert, C. S. See Beath, O. A.
Gilbert, C. W. See Dee, P. I.
Gilbert, E. C., and Bushnell, V. C., hydrazine; heats of solution of hydrazonium salts at 25°. II., A., 291. See also Ware, G. C.

Gilbert, F. W., human anthrax in Barotseland treated with novarsenobenzene, A.,

Gilbert, H. N. See Du Pont de Nemours &

Co., E. I. Gilbert, M. E. J., changes in odour of

mushrooms, B., 905. Gilbert, R. W., high-speed, high-sensitivity photo-electric potentiometer, A., 305.

Gilbert, W., heat transmission in rotary kilns. XI. and XII., B., 351, 498. Mixing

machines, (P.), B., 352.
Gilbert, W. V., treatment of metals and alloys, (P.), B., 553. [Anticorrosion] lubricants, (P.), B., 1031.

See also Pearson, R. E., and Sutton, H. Gilbert Co., A. C. See Gilbert, A. C.

Gilbertson, G. I., plum-tree borer (Synanthedon pictipes, G. and R.), B., 116. Gilbertson, L. I., and King, G. B., prepar-

ation of selenic acid, A., 302.

Gilchrist, R., and Wichers, E., separation of the six platinum metals from one another and their gravimetric determination, A., 180.

Gildea, E. F. See Himwich, H. E.

Gile, P. L., effect of different colloidal soil materials on toxicity of calcium arsenate to millet, B., 807.

Gilfillan, F. A., and Logan, F. P., alkaloid content of Oreg scoparius, B., 907. Oregon-grown Cytisus See also Beals, E. L.

Gilfoil, W. S., nomographs for determining mol. wts. by the f.-p. and b.-p. methods, A., 957.

Gilkey, W. A. See Bergstrom, F. W. Gilkey, W. K., Rohs, H. L., and Hansen, H. V., apparatus for isolation of fluorine, A., 583.

Gill, A. F., properties of salt-clay roadsurfacing mixtures, B., 456.

Gill, A. M. See Bennett, T. L. Gill, E. See Davies, W. L.

Gill, H. S. Y., distribution of heat losses in a tank furnace system, B., 275.

and Nichols, N. A., survey of surface temperatures of a glass tank melting furnace, B., 19.

See also Dimbleby, V.

Gillam, A. E., and El Ridi, M. S., adsorption of grass and butter carotenes on alumina, A., 155. Isomerisation of carotenes by chromatographic adsorption. I. ψ-a-Carotene, A., 1369.

and Heilbron, I. M., carotenoids of butter, A., 227. Absorption spectra of sterols from natural sources with particular reference to ergosterol and

other vitamin-D precursors, A., 1033. Heilbron, I. M., Ferguson, W. S., and Watson, S. J., variations in carotene and vitamin-A values of butter from cattle of typical English breeds, B., 1175.

and Senior, B. J., distribution of vitamin-A between light petrol and aqueous methyl alcohol, A., 1032.

See also Bradfield, A. E.

Gillan, F. A., electric [primary] cells, (P.), B., 377.

Gillan, J. G. See Rowe, F. M.Gillander, H. E. See Rhodes, E. O. Gillaspie, A. G. See Bernheim, F.

Gille, R., determination of cuglobulin, A.,

See also Benhamou, E.

Giller, A. O., paper from waste tanbark oak, B., 186. Acid-resisting silicate cements, B., 372. See also Martinov, M. F.

Giller, O. K., composition of (cooking) acid for sulphite pulping, B., 405.

Gillert, E., treatment of military gas poisoning, A., 517.

Gilles, E., ultra-violet absorption of cellophane and of tissues and vegetable organs, A., 662.

Gilles, J. W., sintering of blast-furnace dust and fine ore in shaft furnaces, B., 104.

Gillespie, B. See Reyerson, L. H.

Gillespie, M., hypochlorhydria in asthma with special reference to the age incidence, A., 882.

Gillet, A., applications of colloidal chemistry [in clarifying sugar juices and coal wash-water], B., 808. Mechanical properties of coke and researches on transient fusion of coal, B., 1187.

and Leclerc, E., determining dusts or gaseous impurities in air or in moving gases, B., 1069.

and Pirlot, A., total solution in benzene of fundamental material of coal, B.,

See also De Brouckère, (Mlle.) L. Gillet, J. M., and Victor Chem. Works, treatment of [boiler-feed] water, (P.), B.,

352.Gillett, H. W. See Lorig, C. H.

Gillett, S., coffee in Kenya. II. Vegetative propagation, B., 38.

Gillett. T. R., and Holven, A. L., continuous photo-electric measurement of turbidity in sugar-refinery products, B., 711.

See also Holven, A. L.

Gillette, R. H., effect of substitution on the infra-red absorption spectrum of acetic acid, A., 1049.

and Daniels, F., effect of association on the infra-red absorption spectrum of

acetic acid, A., 1049.

and Sherman, A., nature of the hydrogen bond. I. Association in carboxylic acids, A., 1051.

Gillette Safety Razor Co. See Stargardter, A. R.

Gillies, A., removal of sulphur from benzol,

Gilligan, D. R., and Edsall, G., relation between insensible water loss and heat production in hyperthyroidism, A., 1566.

Gilligan, G. M., effect of fertilisers and liming on electrodialysable manganese of Sassafras silt loam, B., 514. Effect of fertilisers and lime on electrodialysable and exchangeable potassium of cropped soil, B., 1115.

Gilliland, E. R., p-v-T relations of gaseous mixtures, A., 419.

Gunness, R. C., and Bowles, V. O., free energy of ethylene hydration, A., 565.

Gilliland, E. W., Price, S. D., and Mine Safety Appliances Co., quantitative gas analysis, (P.), B., 49. Gillis, M. C. See Huelsen, W. A.

Gilman, A., and Barbour, H. G., effects of phenacetin and aspirin, respectively, on action of phenobarbital, A., 891.

and Goodman, L. S., secretion of an antidiuretic pituitary hormone in response to the need for renal water

conservation, A., 1158.
Gilman, H., and Barnett, M. M., [with Kirby, R. H.], smooth conversion of compounds ligRX into compounds HgR₂, A., 1278.

and Kirby, R. H., carbazole. I. Selective metalation, A., 1396. Relative reactivities of organometallic compounds. XIV. Orientation in metalation, A., 1528.

Kirby, R. H., Lichtenwalter, M., and Young, R. V., relative reactivities of organometallic compounds. VII. Cal-

cium, A., 492.

and Lichtenwalter, M., relative aromaticities. VI. 2-Furonitrile, A., 1262. Lichtenwalter, M_{\cdot} , and Kirby, R_{\cdot} , H_{\cdot} , relative reactivities of organometallic compounds. X. Lithium and magnesium [compounds], A., 1279.

and Marple, K. E., relative reactivities of organometallic compounds. Boron. VIII. Aluminium and zine,

A., 492, 743.

and Nelson, J. F., relative reactivities of organometallic compounds. IX.

Cadmium, A., 1004.

St. John, (Miss) E. L., St. John, (Miss) N. B., Lichtenwalter, M., and Heck, L. L., relative reactivities of organometallic compounds. XI. Grignard reagents, A., 1279.
Smith, E. Westley, and Cheney, L. C.,

dibenzfuran; [diphenylene oxide]. VII. Derivatives of tetrahydrodibenz-

furan, A., 208.

and Straley, J. M., relative activities of organometallic compounds. Copper and silver, A., 1528.

Gilman, H. See also Bywater, W. G., and Kirkpatrick, W. H.

Gilman, L. See Greisheimer, E. M. Gilman, Lucius. See Allen, C. F. H.

Gilmer, R. S., Kinder, D. E., and Bohn, R. M., disappearance of flavours in biscuits, A., 952.

Gilmore, F. E., solid carbon dioxide, (P.), B., 988.

Gilmore, R. E., Nicolls, J. H. H., and Connell, G. P., coal-friability tests; comparative study of methods for determining friability of coal and suggestions for tumbler and drop shatter-test methods, B., 723.

Gilmour, G. van B., and Arup, P. S., butter

in cold storage, B., 952. Gilroy, (Miss) H. T. Scc Kruger, P. G. Gilyard, A. T., and Gilyard, R. T., accton-

æmia in goats, A., 1140. Gilyard, R. T. See Gilyard, A. T. Gimpelevitsch, E. See Kozlov, N. S.

Ginder, P. M., Handwerk, E. C., and New Jersey Zinc Co., reduction of zinciferous material, (P.), B., 330.

Mahler, G. T., Cyr, H. M., and New Jersey Zinc Co., purification of zinc metal, (P.), B., 330.

and New Jersey Zinc Co., metallurgical furnace, (P.), B., 936.

See also Improved Metallurgy, Ltd. Gindin, L. G., and Ambarzumjan, R. S., corrosion of metals by non-electrolytes, B., 698.

Ginger, J. E. W. Sec Rohn, W. Ginglinger, A. See Wolff, E. Gingold, N. See Stoicesco, S.

Gingrich, N. S., voltage sources and am-plifiers for Geiger counters, A., 814.

and Hultgren, R., Fourier analyses of X-ray patterns of phosphorus, A., 1325.

and Warren, B. E., relation between amorphous and crystalline scattering and its application to crystal analysis,

Ginodman, G. M., extraction of oak pulp, B., 420.

and Krasuchin, M. N., disintegration of oak pulp in the Schreder disintegrating machine, B., 420.

See also Chaduik, M. I., and Konova-

Ginsberg, A. S., hydrogenation catalysis. II. Technique of hydrogenation. IV. Essential oils, A., 35; B., 158. Mutual relation between silicates and sulphides, A., 682.

and Juraschevski, N., hydrogenation catalysis. III. The hydrogen value a constant for fatty oils, B., 158.

Selivanov, B. P., Nikolski, S. and Vorovitsch, M. M. 2MnO,SiO₂+FeS, A., 1205. M. M., system See also Selivanov, B. P.

Ginsberg, $H_{\cdot \cdot}$, colorimetry of titanium. IV., A., 180.

See also Steinhäuser, K.

Ginsburg, J. M., and Granett, P., derris insecticides. III. Aphicidal properties of derris and cubé, B., 293.

Schmitt, J. B., and Granett, P., comparative toxicity of anabasine and nicotine sulphates to insects, A.,

Ginsburg, N., and Barker, E. F., infra-red absorption spectrum of methyl dcuteride, A., 9.

Ginsburg, R. B. See Mokruschin, S. G. Ginsburg, S. See Pringsheim, H.

Ginsel, L. A., ultra-violet absorption by liquids, A., 1048.

Gintzburg, J. S., magnetic chromium steel, B., 994.

Alexandrova, N. A., and Gelderman, L. S., hot-working of chromium-manganese, chromium-manganese-nickel, and chromium-nickel stainless steels, B., 994.

Gelderman, L. S., and Goldberg, A. D., stainless bimetal, B., 414. and Goldberg, A. D., nichrome wire,

B., 994.

Ginzburg, A. A. See Tziurich, L. G.

Ginzburg, E., cracking, pyrolysis, and coking; methods for production of a high-octane fuel and of petroleum coke, B., 676.

Ginzburg, E. I. See Ptschelin, A. A. Ginzburg, I., determination of fatty acids in soaps containing fillers, B., 27.

Ginzburg, M. See Goldstein, B. Ginzburg, M. L. See Kolpakov, I. Giolitti, F., technique of nitriding steel and cast iron, B., 598.

Gion, L. P. R. See Chovin, P. E. M.

Giordano, R., evaluation of complex pharmaccutical preparations. I. Methyl pomades. II. Complex salicylate

methyl salicylate pomades, B., 429. Giovanardi, A., antigenic power of glycogen and starch, A., 748.

Gipp, N. K. See Kozeschkov, K. A., and Nesmejanov, A. N.

Giral, F., micro-determination of mol. wt. in exaltone, A., 956. Preparation of ϵ -trimethylhexobetaine, A., 973.

Girand, J. B., recovery of gold or other metal particles from sand, etc., (P.), B., 505. Gold recovering device and method, (P.), B., 891.

Girard, A., and Sandulesco, G., new reagents for the carbonyl group, their application to the extraction of ketonic and substances the microchemical characterisation of aldehydes and ketones, A., 1397.

Girard, P., and Abadie, P., molecular interactions and structure of liquids, A., 666. Girardet, L. F., high-quality cast iron and

stray castings, B., 457. Girardin, A., iodophilic substanco of leucocytes, A., 1399.

Girdler Corporation. See Bottoms, R. R. Gire, G., hydrolysis of basic nickel sulphate, A., 692.

and Rivenq, F., hydrolysis of solutions of quinquivalent vanadium sulphate, A.,

Girerd, H. Sce Magnan, A.
Giri, K. V., salivary phosphatase, A.,
1025. Phosphatase of human milk, A., 1557.

and Datta, N. C., phosphatases of brain, A., 245. Brain phosphatase, A., 1153. and Sreenivasan, A., amylase system of rice grain during ripening and germin-

ation, A., 1418. Girko, P. A., Fratkin, R. L., and Jakovenko, M. I., influence of products of hydrogenation from waste of Nicotiana rustica and nicotine manufacture on the crop of N. rustica, B., 757.

Girola, C. D., toxicity of sweet sorghums used as fodder, B., 394.

Girotti, P. See Brüll, L.

Giroud, A., Cesa, I., Ratsimamanga, R., and Rabinowicz, M., variations in tho ascorbic acid content of the ovaries. particularly in the corpus luteum, A., 1160. Giroud, A., and Champetier, G., X-ray analyses of keratins, A., 1138.

and Leblond, C. P., [distribution of] ascorbic acid, A., 530. Value of tho acid silver nitrate reaction as a test for

ascorbic acid, A., 1430.

Leblond, C. P., Ratsimamanga, R., and Rabinowicz, M., realisation of the normal ascorbic acid content in tho organism responsive to deficiency, A., 119. Conditions for the silver nitrate reaction as a test for ascorbic acid, A., 255.

and Ratsimamanga, R., vitamin-C in invertebrates, A., 255.

Ratsimamanga, R., Baratte, A., and Sylva, F., reactions of animals susceptiblo to deficiency to increasing doses of ascorbic acid, A., 120.

Ratsimamanga, R., Leblond, C. P., Chalopin, and Rabinowicz, M., relation between ascorbie acid and carotenoids [in plants], A., 912.

Ratsimamanga, R., Rabinowicz, M., and Hartmann, E., ascorbic acid in course of cadaverisation, A., 529.

Ruiz, A.S., Leblond, C.P., and Ratsimamanga, R., ascorbic acid content of animals in C-avitaminosis, A., 1033.

Ruiz, A. S., Ratsimamanga, R., Rabinowicz, M., and Hartmann, E., capacity of synthesis of ascorbie acid in the fœtus, A., 765.

See also Randoin, L.

Giršavičius, J., Efendi, P. H., and Ryzhova. A. P., properties of glyoxalase; effect of $p_{\rm H}$, temperature, and amino-acids on dried glyoxalase, A., 635. See also Friedmann, E.

Girtschanov, K., nitrogen fixation by germinating legumo seeds without cooperation of nodule bacteria,

Girvin, C. W., and Deepwater Chem. Co., Ltd., purification of silver iodide, (P.), B., 593.

and Io-Dow Chem. Co., recovery of iodino [from silver iodide], (P.), B., 1039.

Girvin, W.S. See Jennison, H.C.

Giry, L. See Michel, A. Gisen, F., behaviour of single crystals of aluminium of different degrees of purity prepared from the molten metal and by recrystallisation, A., 276.

Gishler, P. E., and Maass, O., system calcium oxide-sulphur dioxido-water. II. Calculation of ionic concentrations. III. Precipitation temperatures. IV. Vapour-pressure studies in presence of cellulose and wood, A., 160, 429; B., 1145. Vapour-pressure studies in [sulphite-]cooking of wood, B., 14. Electric[al] method for determination of concentration of [wood] pulp in water, B., 94.

See also Gurd, G. W.

Gisseleire, J. See Bilterys, R.

Gisser, A. See Steinmetz, H.
Gist, W. J. See Julian, P. L.
Gisvold, O., sterols of Achillea millefolium, A., 533.

See also Hall, J. A.

Givaudan & Co., Société Anonyme, L., coumarin, (P.), B., 140.

Givaudan-Delawanna, Inc. Seo Carpenter, M. S.

Givaudon, J. See Woog, PGizler, L. See Dziewoński, K. Gjerulff, J. P. H. See Bastrup, K. Gladischev, A. T. See Syrkin, J. K. Gladney, A. L., and Hanrahan, M. S., cellular aggregate, (P.), B., 992.

Gladstone, S. A., oxygen utilisation, cardiac output, and related circulatory functions in Graves' disease, A., 1540. Glässner, K., and Klausner, E., rendering

water practically free from gases, alkalis, acids, and organic and inorganic admix-

tures, (P.), B., 1070.
Glagolev, A. A., and Gotman, J. D. experimental quantitative mineralogical sampling of holes of the Kounrad copper ore deposit, A., 184.

Glagoleva, A. A., and Tscherbov, S. I., specific heat of formic acid and its aqueous solutions, A., 1058.

Glanzstoff-Courtaulds Ges.m.b.H., aftertreatment of thread windings of regenerated cellulose, (P.), B., 1087

Glarum, S. N., correlation of the physical properties and printing quality of vat printing pastes, B., 540.

Glasebrook, A. L., Phillips, N. E., and Lovell, W. G., action of aluminium halides on n-pentane, A., 1485.

Glaser, effluents of the margarine industry, B., 910.

Glaser, E., and Konya, A., assay of aphro-disiacs by Glaser and Haempel's fish method, A., 1293.

Glaser, G., electrical observations during the formation and re-formation of colour centres in potassium bromide and chloride crystals, A., 1321.

Glaser, W., image errors of the electron microscope, A., 46. Utilisation of sludge acid [from petroleum refining], (P.), B., 9.

Glasgow, E., [small] hydrogen sulphide generator, A., 1355.

Glasman, J. See Volkov, K. Glasman, S. See Rogovin, S.

Glass, J. J., pegmatite minerals from near Amelia, Virginia, A., 309. See also Henderson, $E.\ P.$

Glass, N., preparation and properties of iodoform and thymol iodide, B., 74.

Glass, V. See Wooldridge, W. R. Glasscock, H. H. See Furneaux, B. S. Glasser, J. See Copley, M. J.

Glasser, O., and Beasley, I. E., induced ultra-violet fluorescence and its release by visible light, A., 1319. Effect of visible light on the ultra-violet fluorescence of various compounds previously irradiated with Röntgen or y-rays, A., 1320.

Glassman, H. N. Sec Jacobs, M. H. Glassmann, B., and Pompar, K., analytical methods and studies in technical practice of the lineleum and cork industry. Iodometric determination of lead in drying agents, varnishes, and oils, B., 1108.

Glasstone, S., "activated complex" theory and the influence of solvents on re-

action velocity, A., 803.

and Hickling, A., hydrogen peroxide theory of electrolytic oxidation and influence of the electrode surface on anodic polarisation, A., 162. Electrolytic oxidation. VII. Electrolysis of acetates in non-aqueous solutions, A., 942.

See also Baddeley, G., Bennett, G. M., and Earp, D. P.

Glaswerk G. Fischer, electrical luminousdischarge device for production of green light and glass tubing for manufacture thereof, (P.), B., 1164.

Glattfeld, J. W. E., and Macmillan, D., lactones in liquid ammonia, A., 967.

aud Schimpf, G. W., hydrogenation of aldonic δ - and γ -lactones and of aldoses, A., 190.

Glatzel, J., action of iodine on basal exchange in intestinal closure, A., 515.

Glaze, F. W., and Finn, A. N., routine determination of boron in glass, B.,

Glazunov, A., and Drescher, E., action of colloids on the KG of cathode deposits. A., 942.

and Honza, B., electrolysis under the microscope. X. Crystallisation centres in cathodic deposition of gold, A., 170.

and Lazarev, N., crystallisation of metals without the influence of gravity, B., 1158.

and Schleich, L., rate of linear crystallisation KG_1 of silver peroxide deposited at the anode, A., 1213.

and Valečka, K., influence of small amounts of agar-agar and gelatin on the KG_1 of the anode deposit of silver peroxide, A., 299.

Gleason, A. H. Sec Standard Oil Develop-

ment Co.

Gleason Works, surface hardening of [ferrous-]metal articles, particularly gear wheels, (P.), B., 332.

Gleditsch, E., and Egidius, T. F., mercurous salts and their amino-compounds. I. and II., A., 574, 1217.

Gleeson, G. W., and Paul, W. H., watergas reaction apparently controls exhaust gas composition, B., 1027.

Gleichmann, F., biologically active substances in fruit of the tomato (Solanum esculentum) with histamine-like action; therapeutic action of fresh vegetable

juice, A., 533.

Gleim, W. See Fischer, Hans.

Glen, W. L., Sutherland, M. M. J., and

Wilson, F. J., preparation and therapeutic properties of certain acridine derivatives. I. Anil and styryl derivatives of 2:8-diaminoacridine and acridine-5-aldehyde respectively, A., 1521. Glenny, A. T., and Stevens, M. F., Staphyl-

ococcus toxins and anti-toxins, A., 114. Gleu, K., and Jagemann, W., action of iodine monochloride solutions on heterocyclic bases, A., 1266.

and Pfannstiel, K., 3-aminophthalhydrazide, A., 1392. Benzisooxazolone-4carboxylic acids and indazolone-4carboxylic acids, A., 1393.

and Rehm, K., luteo- and purpureo-salts of ruthenium; ruthenammines. I., A., 948.

Glezina, O. M. See Kovalski, V. V.
Glick, D., and Biskind, G. R., histochemistry. VI. Quantitative distribution of vitamin-O in the small intestine. VII. Concentration of vitamin-C in the thymus in relation to its histological changes at different stages of development and regression. IX. Quantitative distribution of vitamin-C in the adrenal gland at various stages of development, A., 647, 905, 1429. See also Biskind, G. R.

Glick, D. P., microbiology of ageing clays, B., 789. Effects of various treatments on ageing of a ceramic body, B., 1041.

See also Baker, D. R.

Glickman, G. S., water-emulsion waxes; preparation of rubless wax finishes, and a study of emulsifiers, water-resistance, specifications, and testing of finished products. II., B., 799.

Glidden Co. See Cone, C. N., Neuhaus,

T. A., and O'Brien, W. J.

Glikman, S., and Medvedkov, E., ζ -potential and stability of celluloso [nitrate and] ethers, A., 562.

Glinka-Tschernorutzkaja, E. L., influence of myolysate on metabolism of rabbits kept on an acid- or base-forming diet, A., 628. Action of myolysate on blood-sugar content on an acid- or base-forming diet, at rest or at work, A., 628.

See also Hefter, J. M.Glinskich, S. A. See Orlov, N. A.

Gliwitzky, W., measurement of pressure in aluminium dust explosions, B., 890.

Glixelli, S., Chrzanowska, R., and Boratyński, K., metaphosphoric acids. I. Changes in electrical conductivity during transformation of the acids in aqueous solution, A., 937.

Globar Corporation. See Boyer, J. A., Hediger, E., and Heyroth, A. H.

Glock, G. E., rates of digestion of starches and glycogen and their bearing on chemical constitution. I. Action of amylases on starches and glycogen, A., 1297.

Glocker, R., fast electron beams and their significance in radiation therapeutics, A., 1019. X-Ray measurement of clastic stresses, B., 240. and Osswald, E., individual determin-

ation of principal elastic stresses by

X-rays, A., 954.

Glockler, G., and Calvin, M., electron affinity of iodino from space-charge effects, A., 129. Electron affinity of bromine atoms from space-charge effects, A., 1185.

and Davis, H. M., acetylene linking frequency in heavy acetylene (C2D2),

A., 407.

and Morrell, C. E., fundamental frequencies of acetylene, A., 269. Raman effect of acetylenes. II. Di-iodoacetylene, liquid acetylene, and deuteracetylenes, A., 269. Symmetric C-D linking vibration in heavy acetylene, A., 1176. and Peck, R. E., liquid propane; elec-

trical conductance and dielectric con-

stant, A., 1321.

and Thomas, L. B., sensitised decomposition of hydrogen with electrons of controlled energy, A., 172.

See also Dorn, J. E.

Glöersen, L., and Fibre Making Processes, Inc., apparatus for introducing fused chemicals into liquid, (P.), B., 528.

Gloor, W. E., and Spurlin, H. M., gel system: cellulose nitrate-copperbronze, A., 795.

See also Hercules Powder Co. Gloppe, K. E. See Kolle, F.

Glotz, (Mlle.) G., aromatic lactams, A.,

Glover, J., skatole as growth-promoting substance, A., 532.

Glover, R. E. See Bosworth, T. J.

Glover, R. L., and Bain, J. W., action of carbon disulphide and aqueous potassium hydroxide on alkali lignin, A., 610.

Glowczyński, Z. See Rogoziński, F. Gloyns, F. P. Sec Page, A. B. P.

Gluchovskaja, L. M. Seo Nikiforov, E. A. Glückauf, E., and Fay, J. W. J., direct production of organic compounds containing artificial radio-elements, 588.

Glückmann, S., nature of cellulose ester solutions, A., 1066.
Gluesenkamp, E. W. See Hass, H. B.

Gluhenki, T. T. See Putschinski, L. I.

Glusmann, M., Tcherviakov, M., and Starobinetz, G., medium for production of a highly active tetanus toxin, A., 1028.

Gluud, W., and Ges. für Kohlentechnik m.b.H., purification of ammonium thiocyanate, (P.), B., 233. Gnadinger, C. B., insecticides, (P.), B.,

1013.

Gnatenko, K. M. See Kasanski, B. A. Gnezda, J., indole compounds, A., 482.

Go, Y., and Kratky, O., X-ray studies on

choleic acids, A., 784. and Kubo, T., relation between inner fine structure of hairs and their mechanical properties; suitable X-ray diagram for determining the degree of parallelism of the crystallites in fibres, B., 489.

Goacher, W. See Evans, N. L.

Goadby, H. K., and Stacey, R. S., action of

parathormone. II., A., 526.
Gobert, (Mme.) S., determination of caffeine in coffee, coffee extracts, " caff-

eine-free "coffee, and tea, B., 1125. Gockel, H., [explosion in preparation of guanidine nitrate from ammonium thiocyanate], A., 195. Gockowiack, H. See Thiessen, P. A.

Goda, S. See Shibata, Y. Godber, F., Staybrite steel as applied to the

dyeing industry, B., 315.
Godbert, A. L., and Greenwald, H. P., laboratory studies of the inflammability of coal dust; effect of fineness of coal and inert dusts on the inflammability, B., 771.

Godbole, N. N., detection of adulteration of butter fat (ghee), B., 508.

[with Sarma, Kamal, and Ketkar], com-parison of methods of determining iodine value, B., 1106.

and Amarendra, determination of oleic, linoleic, and linolenic acid by Kaufmann's thiocyanogen value in typical Indian oils containing linolenic acid. III., B., 418.

and Sadgopal, M., determination of Zsigmondy's gold number, foam number, and surface tension of sodium and potassium salts of saturated and unsaturated fatty acids, A., Inconsistencies in determination of A- and B-values [of fats], B., 700. Rancidification of butter fat, B., 1104.

See also Varma, P. S.

Godchot, M., and Cauquil, (Mlle.) G., action of selenium dioxide on cyclanones, A., 471.

Cauquil, (Mlle.) G., and Calas, R., deuterohydrates of krypton and xenon, A., 573. Raman effect of methylcyclopentane derivatives, A., 663.

and Vièles, P., active methyldiglycollic acid and its derivatives, A., 823. Goddard, D. R., and Michaelis, L., deriv-

atives of keratin, A., 218. Godden, W., and Puddy, C. A., yield and composition of ewe's milk, A., 501. See also Duckworth, J., and Watson,

Cyril J.

Godfrey, E. R. See Kerley, C. G. Godina, D. A. See Razuvaiev, G. A. Godina, N. A. See Nikiforov, E. A.

Godinez, M., pulveriser, (P.), B., 721. Godley, T. W. See Bennett, J. F. Godnev, I. N., equation for approximating heat capacities of gases calculated from spectral data, A., 278.

Godney, T. N., and Kalesevitch, S. V., determination of chlorophyll with the aid of the light of a Lange electrical colorimeter, A., 1006.

Godowsky, L., jun. See Mannes, L. D. Godsey, F. W., jun., and Sprague Specialties Co., electrolytic device, (P.), B., 1002.

Godspeed, T. H. See Uber, F. M.

Goebel, F. See Venulet, F. Goebel, S. See Fischer, II. Goebel, W. F. See Chow, B. F., and Hotchkiss, R. D.

Goecke, E. See Reerink, W.

Goehring, M. See Bruner, E.

Göldner, A., preparation of "Mischzinn" [tin-lead-antimony alloy], B., 744.

Göler, F. K. von, and Sachs, G., bearing metals, B., 1099.

and Scheuer, F., white bearing metals with a lead-tin base, B., 995.

Göller, K. H., alkalinity of protein substrates [in evaluation of bating materials], B., 804. Evaluation of bates and bating materials [for skins], B.,

Gönezy, V. I. von, and Kiss, J., action of pituitrin on venous blood pressure, A.,

Goens, E., principal elastic constants of single crystals of copper, gold, and lead, A., 785.

and Schmid, E., elastic constants, electrical resistance, and thermal expansion of magnesium crystals, A., 785.

Goeppert-Mayer, M., and May, A., some lattice sums involved in calculation of elastic constants, A., 1053.

Görbing, J. See Krügel, C. Goergen, G. G. See Dow Chem. Co.

Goerig & Co., Akt.-Ges., Haken, K. von, and Kulisitsch, S. von, separation or extraction of gas from mixtures of gas and dust, (P.), B., 480.

Görlich, B. See Bernhauer, K.

Görlich, P., combined transparent photocathodes, Λ ., 1223.

Goerner, A., and Samuelsen, G., calcium metabolism in idiopathic hypopara-

thyroidism, A., 101.
Goerner, G. W., bleaching composition, (P.), B., 407.

Görnitz, K. See Schering-Kahlbaum A.-G. Göth, H. E. H., evaporation operating at low temperature with waste heat, B., 768.

Goethals, C. A., objective colorimetric determination of copper, A., 579.

Goethals, G., control of pressure during vacuum distillation, A., 583. Lederer-Manasse reaction; synthesis of vanillyl alcohol, A., 1247.

Götte, A., losses of metal in extraction, B., 200. Float-and-sink tests for friable coals and the finest sizes, B., 770.

Goettsch, E., treatment of infantile scurvy with ascorbic acid, A., 765. See also Weech, A. A.

Goettsch, M., and Pappenheimer, A. M. [with **H**art, A.], prevention of nutritional encephalomalacia in chicks by vegetable oils and their fractions, A., 1141.

Goetz, A., supercooling, A., 1186. Cryogenic laboratory of the California Institute of Technology. II., A.,

Buchta, J. W., and Ho, T. L., thermal expansions of alloyed bismuth crystals in the region of the eutcetic m.p., A., 418.

and Dodd, L. E., structure of crystalline bismuth and selenium layers produced by condensation in vacuum, A., 1450.

Stierstadt, O., and Focke, A. B., crystalline properties and magnetic anisotropy of distilled bismuth, A., 273. See also Jacobs, R. B.

Goetz, G., and Kern, L., vertical coking retort bench, (P.), B., 867.

Götzl, F. Seo Fürth, O.

Goeze, G. See Alten, F., and Gassner, G. Goff, J. T. See Westinghouse Electric &

Manufg. Co.
Gogate, D. V., and Kothari, D. S., surface tension of liquid metals, A., 142. Goheen, G. E. See Coleman, G. H.

Gohr, H. See Schultes, H. Goiffon, R., Nepveux, F., and Chaleil, determination of bile salts in human bile, A., 501, 880.

Goin, F. A., indirect colorimetric semimicro-determination of the sulphate anion, A., 442. Colorimetric determination of morphine in opium, B., 429.

Goissedet, P., Despois, R., Gaillot, P., and Mayer, R., action of the sulphonamide radical on experimental streptococcal infection in the mouse, A., 761.

Golandas, G., physiology of blood-glycogen. I., A., 496.

See also Staub, H.

Golber, L. M., ketogenesis in muscular tissue, A., 1018.

Golbreich, J. V., hydrogen sulphide process of purification of zinc compounds for preparation of luminescent zinc sulphide, B., 640.

and Egorova, I. V., preparation of luminescent zinc orthosilicate, A., 809.

Gold, H., and Travell, J., vaso-depressor action of strychnine after ether, alcohol, barbital, and chloral, A., 1021.

Goldberg, A., Jackson, I. M., and Allis-Chalmers Manufg. crusher, (P.), B., 129. Co., gyratory

See also Kaloroil Burners, Ltd.

Goldberg, A. D. See Gintzburg, J. S.Goldberg, A. M., determination of the calorific value and composition of [army ration] lunches, B., 1066.

Goldberg, D., Abezgauz, I., and Margolis, L., application of ethylene dichloride in dewaxing of highly viscous oils, B., 728.

and Margolis, L., highly viscous oils from the Karachuchur crude oil, B.,

Tschikareva, N., and Antonova, K., separating oil from alkali sludge, B.,

Goldberg, I. M., biological action of metals irradiated by the quartz lamp. IV.,

and Boudyline, V. G., biological action of metals irradiated by the quartz lamp. III., A., 1149.
Goldberg, K. M., intensification of copper

sulphate production, B., 640. Chlorination of zinc ores, B., 840.

Goldberg, M. See Jakubovitsch, S. Goldberg, M. W. See Ruzicka, L.

Goldberg, S. D., and Novocol Chem. Mfg. Co., anæsthetic composition, (P.), B., 1018.

Goldberger, F., and Sylvania Industrial Corp., manufacture from nitrocellulose of skins and envelopes particularly adapted for use as artificial sausage

casings, (P.), B., 588.
Goldblatt, H. See Barlow, O. W., and

Dominguez, R.

Goldemberg, L., and Schraiber, J., determination of small quantities of fluorine in human organic liquids (humours, secretions, and excretions), and results obtained in various pathological states, A., 396.

Golden Gate Club, oiticica oil-ester gum varnishes, B., 648.

Goldenberg, L., step-photometric determination of free chlorine in chlorinated water, B., 46.

Goldenberg, S. D. See Duirmont, E. I. Golder, A. S., machinery layout of a knitted-

goods dychouse, B., 589.

Golder, J., preserving the corrosion-resistance of stainless steel, B., 645. Corrosion problems in the chemical industry, B., 935.

Goldet, A., thermal variation of electrical birefringence of a liquid mixture presenting a critical point of miscibility, A., 1456.

Goldfarb, J. L., and Smorgonski, L. M., isomerism and structural theory, A., 586. Reaction of etherates of tin and titanium tetrachloride. I. Action of thionyl chloride on the etherates, A., 820.

Goldfarb, W. See Himwich, H. E.

Goldfeld, J., and Kobosev, N. I., use of the "skin" effect in investigation of thin metallic layers, A., 1466.

Goldfinger, G., photochemical decomposition of azomethane, A., 943.

Goldfinger, P., and Jeunehomme, vapour pressure and heat of sublim-

ation of carbon, A., 1454. Jeunehomme, W., and Rosen, B., dissociation energy of diatomic sulphur, selenium, and tellurium vapours, A.,

1052. Lasarev, V., and Rosen, B., dissociation energy of carbon monoxide, A., 142.

Goldhaber, M., scattering of neutrons by protons, A., 772.

See also Chadwick, J.

Goldhamer, S. M. See Farrar, G. E., jun., and Isaacs, R.

Goldhammer, H., and Loewy, P., folliclestimulating hormone in the urino of vegetative-stigmatised young men with generative disturbance, A., 1031.

Goldie, H., mechanism of action of anticoagulant substances, A., 359. Characters of antitoxins purified by flocculation, stabilised by formaldehyde, and recovered with sodium naphthylaminetrisulphonate, A., 498. Recovery and stabilisation of the antibacterial agglutinin and anti-sheep hæmolysin of serum. A., 498. Anticoagulant action of arsenobenzenes, A., 747. Alexin and anti-alexic substances of horse serum, A., 747. Preservation of erythrocytes with naphthalene-1:6-disulphonate, 1282.

Golding, N. S., growth of Penicillium roqueforti in cheese, B., 426.

Goldlust, W. See Noss, F.

Goldman, B., mixing, agitating, and similar machines, (P.), B., 48.

Goldman, E. See Chmelnitzkaja, I. Goldman, I. M., and Vul, B. M., breakdown with internal photo-electric effect, A., 549. Breakdown of compressed nitrogen in a non-uniform electric field.

II., A., 924. Goldman, M. M. See Buschmakin, I. N. Goldmann, A., Becquerel effect at oxidised copper electrodes; unidirectional layer photocells and photogalvanic cells, A.,

Goldmann, H., and Buschke, W., passage of vitamin-C into the cerebrospinal fluid and the aqueous humour, A., 1304.

Goldmann, J. See Clusius, K. Goldovski, A. M., physico-chemical theory underlying processes for recovery of vegetable oils, its experimental justification and application in practice. I. and II., B., 378, 557.

and Bozenko, A. A., proteins of sunflower seed and their degradation by the action of heat, B., 43.

Goldovski, B. See Plissov, A. K.

Goldring, W., and Smith, Homer W., inulin and its suitability for intravenous administration in man, A., 1551.

Goldsberry, F. M. See Brown, F. D. Goldsborough, W. E. See Doherty Res. Co.

Goldsby, A. R. See Hurd, C. D. Goldschmidt, A. See Reichstein, T.

Goldschmidt, B., coefficient of fractionation of radium and its isotopes in the crystallisation of barium chlorate, A., 1456.

Goldschmidt, H., and Holemann, P., refraction and dispersion of gases and vapours. VIII. Variation with temperature of molecular refraction of carbon dioxide and acetic acid vapour, A., 780.

Goldschmidt, R., physico-technical problems of ferromagnetism in weak fields,

A., 1452.

Goldschmidt, S., Littmann, E., and Kessler Chem. Corp., catalytic production of esters, (P.), B., 441.

Ravdin, I. S., and Lucké, B., effect of oxygen in prevention of liver necrosis produced by volatile antiseptics, A., 375. Goldschmidt, V. M., refractory products

from raw materials rich in magnesium orthosilicate, particularly olivine rocks, (P.), B., 320. Refractory building materials, particularly mortars, (P.), B., 792.

Bauer, Herbert, and Witte, H., geochemistry of alkali metals, A., 185. and Strock, L. W., geochemistry of selenium. II., A., 816.

Goldschmidt Akt.-Ges., T., recovery of tin from stanniferous materials such as stanniferous scrap metal, (P.), B., 553. See also Verein. Aluminium-Werke A.-G.

Goldshtein, V. A., preparing chamois leather from rejected calf skins, B., 382. Goldsmith, C. H., highly purified wood

pulps in the viscose process, B., 364. Goldsmith, H. H., disintegration of H2 and the stellar abundance of H² and H³,

A., 266. and Cohen, V. W., mass of the neutron

from the nuclear reaction $H^2+H^2 \rightarrow$ $\text{He}^3 + n^1$, A., 134. and Rasetti, F., resonance capture of

slow neutrons, A., 1172.

Goldsmith, N. R., differences in effect of mercuric phenyl chloride on different races of bacteriophage and similarity in effect on a phage and its homologous organism, A., 115.

Goldstein, B., influence of different diets on enzymes of the organism. I. The problem. II. Starvation and blood enzymes. III. Insufficient consumption of proteins and the blood-enzymes, A., 518.

and Ginzburg, M., tissue proteinases (cathepsin) in protein-free and low-protein feeding, A., 1557.

Goldstein, G. See Sobel, A. E.

Goldstein, L., collision of slow electrons in pure oxygen, A., 656. Collisions of the second kind and electron affinity, A., 1052.

and Lecoin, M., continuous β -ray spectrum of radium-C'', A., 658.

Goldstein, R. F. See Imperial Chem. Industries.

Goldstein, S. W., and Jenkins, G. L., fixed oil of poke root, A., 1306.

Goldstern, W., thermal properties of petroleums, B., 1028.

Goldsworthy, L. J., relative directive powers of groups of the forms RO and RR'N in aromatic substitution. X. Nitration of 4-tert.-butoxyanisole and 4-iso-propoxyanisole, A., 1245. Goldsworthy, M. C., and Green, E. L.,

availability of the copper of Bordeaux mixture residues and its absorption by the conidia of Sclerotinia fructicola, B., 807.

Goldwasser, S. See Beebe, R. A., and Soller, T.

Goldwater, L. J., urinary exerction of silica in non-silicotic humans,

Goldzieher, M. A., chronic hypoglycæmia,

Golendeev, V. P. See Plissov, A. K.
Golikov, I. N., abnormality in nickelchromium carburising steels, B., 64. Golitzin, I. V. See Rozental, S. I.

Goljauicki, I. A., and Belonosov, I. S., reduction of inactivated l-ascorbie acid, A., 1488.

Goll, G., and Helft, E., treatment of rubber rubber compounds, (P.), B., and 705.

Gollan, J., volumenometer for determining soil contraction, B., 71.

Gollop, H. See Harrison, E. P.

Gollwitzer-Meier, K., Kramer, K., and Krüger, E., gascous metabolism of the mammalian heart in sufficiency and insufficiency, A., 1542. Effect of adrenaline on activity of the heart, A., 1562.

Golmov, V. P., mechanism of isomerisation of cyclic amines; action of potassium hydroxide on nitrosocyclopropylcarbamide, A., 716.

See also Williams, W. W.

Golombik, M. S., Shavoronkova, A. M., Lev, J. S., and Petin, N. N., clectro-chemical degreasing of metals. 111. Degreasing by means of aqueous phosphates and silicates, B., 64.

Golossova, O. N., peptisation of flour, dough, and bread, B., 519. Study of peptisation of gluten-protein by the triangular-diagram method, B., 1065.

See also Kuhlmann, A. G. Golova, O. P., factor of cellulose quality, B., 185. Effect of sulphuric acid hydrolysis on the quality and yield of lignin obtained from bleached sulphite pulp, B., 829.

Galovanov, V. N., gas balance of the ammonia synthesis, B., 738.

Golovati, R. N., gas coals of the Stalino-Makeevka (Don) basin, B., 913. Permeability and adsorptive and reducing powers of certain Donetz cokes, B.,

and Smoljanitzki, I. A., changes in the chemical composition of refractories during their service in a blast furnace,

Golovkov, M. P. See Achumov, E. I. Golovtschiner, J. M. See Bachmetev, E. F. Goltz, L. N., and Charlamov, V. N., electrodeposition of tungsten-nickel and tungsten-nickel-copper alloys, from aqueous solutions, B., 645. Electrodeposition of tungsten from aqueous solutions, B., 645. Goltz, R., accurate measurement of vol-

umes, and accurate titration, A., 46.
Goltzschmidt, V. A., Vorobjev, N. K., and
Potanov, I. V., kinetics of hydrolysis of esters in alkaline media, A., 1073.

Golub, I., a hard alloy, elwotite, B., 744.
Golub, N. V., and Lure, A. I., pulping hemp chaff by the cold process, B., 185. Golub, S. I., luminescence of solid solutions of rhoduline, A., 270.

Golubev, I. F., and Babkov, S. I., laboratory equipment for testing ammonia synthesis catalysts at high pressures,

Golubeva, M. T., colorimetric determination of aluminium with hæmatoxylin, A., 1221.

Golubtsova, A. V., and Kahn, J. L., ammonia production in the non-medullated nerve of the molluso Anodonta, A., 1019.

Goluschko, N. A. See Belovodski, V. V. Golyand, S. M., oxidation of sulphur dioxide in the high-voltage are discharge, A., 808.

Gombas, P., statistic perturbation theory. I. Perturbation calculations with the Thomas-Fermi theory excluding exchange. II. Perturbation calculations with exchange for the Thomas-Fermi theory, A., 134, 272. Metallic binding. I. and II., A., 781, 925. Gomez, E. T. See Gardner, W. U.

Gomez, J., latex of Brosimun galactodendron, A., 1166.

Gómez Ibáñez, O., determination of ammoniacal nitrogen in sea-water, A., 1220. Gómez Múgica, E., Atropa betica, A., 1037. Gomonet, E., and Air Reduction Co.,

separation of air and similar gaseous mixtures by liquefaction and rectification, (P.), B., 529. Gomory, W. L. See Standard Oil Develop-

ment Co.

Gon, K. See Boku, S.

Gonell, H. W., use and significance of aërodynamic processes in technique of measurement of very small particles, B., 351. Estimation of very finely-divided solids, B., 768. Determination of composition of dusts by particle size and speed of falling, B., 911.

Gonsalves, V. E., reproducibility of the relative energy distribution of the continuous H2 spectrum emitted by a hydrogen discharge tube, A., 1.

Gontscharenko, K. M. See London, M. E.Gontscharevski, M. S. See Pochvisnev,

Gontscharov, N. A. See Achumov, E. I. Gontzea, I. See Nitzescu, I. I. Gonzalez, G. J., physico-chemical charac-

teristics of body fluids in cancer patients, A., 751.

Gonzalez Barredo, J. M., determination of parameters k and n in the differential equation $dx/dt = k(a-x)^{n}t^{p-1}$; chemical applications, A., 1074.

González Núñez, F., revision of at. wt. of chromium. II. Study of the relations CrO₂Cl₂: 2Ag and CrO₂Cl₂: 2AgCl, A.,

and Regidor, P. P., micro-determination of iodine, A., 950.

Gooch, W., surfacing materials for roads,

etc., (P.), B., 21.
Good, R. C., slag control for alloy forging steel, B., 410.

and Electro Metallurg. Co., malleable iron casting, (P.), B., 375.

Goodall, \tilde{F} . L., theory of wool dyeing, with reference to acid dyes in colloidal solution, B., 97. Fastness of wool dyeings to wet treatments. II., B., 787.

Goodall, G. D., and Haworth, R. D., telfairie acid, A., 590.

Goodall, (Miss) I., and Robertson, A., hydroxy-carbonyl compounds. XI. Phosphoryl chloride as a condensing agent,

Goodall, R. R., and Kermack, W. O., action of phosphorus pentachloride on derivatives of diphenylamine, A., 1266. Attempts to find new antimalarials. XV. Synthesis of acridine compounds related to atebrin, A., 1521.

Gooden, E. L., and Smith, C. M., dimorph-

ism of rotenone, A., 341.

Goodeve, C. F., relative luminosity in the extreme red, A., 1168. Removal of mist by centrifugal methods, B., 959. and Stephens, B. A., absorption spectrum

of chlorine, A., 1437. and Taylor, A. W. C., continuous absorption spectrum of hydrogen bromide, A., 135. Continuous absorption spectrum of hydrogen iodide,

A., 775. and Windsor, B. A. M., absorption spectrum of chlorine heptoxide, A., 1443. See also Dartnall, H. J. A., Dooley, A.,

Fajans, E., and Farquharson, J. Goodhall, S. N. See Dunlop Rubber Co. Goodhue, L. D., Gross and Smith colorimetric method for determination of rotenone and deguelin, A., 493.

sitive thermo-regulator, A., 1354. Goodlass Wall & Lead Industries, Ltd., Singleton, W., Oldham & Son, Ltd., and Holt, H., jun., lead [alloy plates for] storage batteries, (P.), B., 604.

See also Waring, H.

Goodman, J. G. See Salmon, W. D.
Goodman, L. S. See Gilman, A.
Goodner, K., Horsfall, F. L., jun., and
Bauer, J. H., ultrafiltration of type I antipneumococcal sera, A., 1532.

Goodpasture, E. W., and Buddingh, G. J., protective action of rabbit serum for vaccinia virus at high temperatures, A., 1156.

Goodrich, R.J. See Du Pont de Nemours & Co., E.I.

Goodrich, W. E., embrittlement of hightensile alloy steels at elevated temperatures, B., 742.

Goodrich Co., B. F., and Semon, W. L., vulcanisation of rubber, (P.), B., 1009. Sce also Busenburg, E. B., Craig, D., Ford, T. F., Partridge, E. G., Reed, M. C., Semon, W. L., and Sloan, A. W.

Goodspeed, G. E., microstructures and metallisation of the gold-quartz veins of Cornucopia, Oregon, A., 1357.

Goodway, N. F. See Barnett, E. de B. Goodwillie, D. H., and Libbey-Owens-Ford Glass Co., case-hardened glass, (P.), B., 1095.

Goodwin, H., blood chemistry of about five hundred patients with common skin diseases, A., 753.

Goodwin, H. L. See Miller, E. J.

Goodwin, J. B., use of electrodialysis for determining phosphate availability in calcareous soils, B., 755.

Goodwin, L. C. See Harben's (Viscose

Silk Manufrs.).

Goodwin, N., Poindexter, R. W., and In-

dustrial Process Co., conversion of hydrocarbons, (P.), B., 1190.

Goodwin, R. T., Rearick, J. S., Ferguson, H. P., and Dorr Co., wood preservation (P.), B. 2006. ative, (P.), B., 236.

See also Standard Oil Development Co.

Goodwin, T. H. See Cox, E. G. Goodwin, W. See Burgess, A. H.

Goodyear, G. H. See Hurd, C. D.

Goodyear-Zeppelin Corporation, improving the physical properties of austenitic alloy steels, (P.), B., 1045.

Goos, A. W. See Olson, E. T.

Goos, F., transmission and reflexion of thin silver layers in the infra-red and ultra-violet, A., 769.

Gopstein, N. M., classifications of chemical reactions, A., 1207.

Gora, E., theory of pressure-broadening of spectral lines, A., 654.

Gorbach, G., the micro-balance, A., 1085. and Kadner, R., gravimetric determination of milk fat and total solids, B., 391.

and Nitsche, K., high-pressure ultrafiltration with cellophane as a means of enzyme purification and determination of particle size, A., 241.

and Ulm, R., bacterial proteases. III.

Acidoproteolyte of Gorini, A., 524. Gorbatschev, K. V., approximate formula for an apparatus for conductometric determination of carbon monoxide and dioxide (and benzine vapour) in air, B., 349.

Gorbatschev, S. V., vapour pressure of drops, A., 149.

and Severny, A. B., movement of a heavy drop in the acoustic field, A.,

Gorcica, H. J., Peterson, W. H., and Steenbock, H., nutritive value of fungi. II. Vitamin-B₁, -B₂, and -B₄ content of mycelium of Aspergillus sydowi. III. Growth of rats on supplemented and unsupplemented mould proteins, A., 119.

Gorcum, A. H. van, determination of velocity distribution of electrons in a low-pressure discharge tube, A., 656.

Gordadse, G. S., the three-centre problem. II., A., 667.

Gorden, C. S. See Bell Telephone Labs. Gordon, A., recovery of precious metals [gold from pyritic ores], (P.), B., 1048.

Gordon, A. R., free energies and vapour pressures of alkali metals, A., 418.

See also Cole, $A.\ F.\ W.$

Gordon, B., jun., Michel, H. J. V., and Skenandoa Rayon Corp., artificial silk, (P.), B., 690.

Gordon, C. B., materials for use as mortar, cement, wood substitute, etc., (P.), B.,

Gordon, C. J., electric primary cells, (P.), B., 65, 332, 507.

Gordon, E. I. See Obuchov, A. P. Gordon, F. F., compound metal bodies [steel coated or lined with stainless

steel], (P.), B., 330.

Gordon, J., and Thompson, F. C., relation between the complement and opsonin of normal serum, A., 877.

Gordon, K., development of coal hydrogenation by Imperial Chemical Industries, Ltd., B., 225.

Gordon, M., calculation of ΔD in a crystal

growth process, A., 47. Gordon, N. E. See Pitzer, E. C. Gordon, P. S. See Freundlich, H.

Gordon, R. R. See Mitchell, S.

Gordon, W. G., Kaufman, R. E., and Jackson, Richard W., excretion of kynurenic acid by the mammalian organism; identification of small amounts of kynurenic acid, A., 502.

Gordy, W., and Williams, Dudley, infra-red absorption of cyanides and thiocyanates, A., 9. Effects of isomerism on infra-red

absorption spectra, A., 406.

Gore, H. C., action of amylases on starch, B., 343.

Józsa, S., Frey, C. N., and Standard Brands, Inc., malt syrup, (P.), B.,

Gore, R. C., and Briscoe, H. T., dielectric constants of solutions of organic acids in ethyl alcohol and benzene, A., 793.

Gore, V., Liesegang rings in non-gelatinous media. I. and II., A., 1201, 1338.

Gore, W. L. See Bonner, W. D. Gorelkina, T. M., iodo-colorimetric determination of starch [in cereals], B., 855.

Gorenbein, E. J., electrochemistry of ternary systems in solvents of low dielectric constant, A., 1071. See also Plotnikov, V. A.

Goresline, H. E., and James, L. H., sauer rüben, B., 857.

See also Champlin, F. M., and Pederson, C. S.

Gorev, K. V. See Botschvar, A. A.

Gorfunkel, D. See Grinev, D. Goria, C., binary systems of alkali metals. I. and II., A., 23, 559.

and Venturello, G., restoration of plastic-

ity in baked clays, B., 1153. Goriatschich, A. N. See Agronomov, E. A. Gorin, J. A., and Neimark, O. M., mechanism of contact conversion of alcohols into diethylenic hydrocarbons, A., 703.

See also Lebedev, S. V.

Gorin, M. H., kinetics of the reaction between ferric and stannous perchlorates in acid solution, Λ ., 1345.

Gorina, A., altax (benzothiazyl disulphide) as a vulcanisation accelerator, B., 655.

Gorini, C., fodders injurious to cheese: disgenetic milk, B., 520.

Gorini, L. See Gorini, M. E. C.

Gorini, M. E. C., and Gorini, L., proteases

of acid proteolytes, A., 1152. Goris, A., and Canal, H., synthesis of 2:6dihydroxy-4-methoxyphenyl β -phenylethyl ketone obtained from the oil of Populus balsamifera, L., A., 337. 2':6'-Dihydroxy-4'-methoxy-β-phenylpropio-phenone from the essential oil of *Populus* balsamifera, L., A., 533. Composition of the oil of Primula auricula, L., A., 911. Heterosides and essential oils in the Primulaceæ, A., 1571.

Gorjainov, A., chemistry in crop production, B., 36.

Gorney, A.J. See Aisner, M.

Gorniak, K. See Hydrawerke A.-G. Gornostaipolski, S. E. See Charaz, S. S. Gorocholinskij, J., Sce Lukeš, R.

Gorodetzkaja, A. See Murtazajev, A.

Gorodetzki, G. A., determination of ozone and nitrogen peroxide in air, A., 694. Gorodisski, H., and Epelbaum, S., lactacid-

ogen and lactic acid in the surviving

pigeon brain, A., 1144. and Epstein, S., influence of cations and carbohydrate on formation of inorganic phosphoric acid during the autolysis of brain extracts, 1146.

Gorschkov, G. Sco Kirikov, A. P.

Gorschtein, G. I., and Chacharina, T. I., preparation of concentrated fertilisers by treating phosphorites with nitric acid, B, 210.

and Dishevski, J. F., preparation of compound fertilisers by fusing ammonium nitrate with ammoniated

superphosphate, B., 659.

Vischnevski, A. N., and Dishevski, J. F., factory tests on crystallisation of ammonium nitrate and its physical properties, B., 232. Crystallisation of ammonium nitrate, and its physical properties, B., 639.

Górski, F., gascous exchange in aquatic plants during photosynthesis, A., 394.

Gorski, V., theory of elastic after-effect in un-ordered mixed crystals, A., 554. Elastic after-effect in the ordered Cu-Au alloys, A., 559. Transitions in alloys. IV. Theory of arrangement processes and diffusion in mixed crystals of AuCu, A., 559.

Sco Linitzki, V.

Gorter, A., formation of nicotine in Nicotiana after feeding with proline A., 649.

See also Overhoff, J.

Gorter, C. J., paramagnetic relaxation, A., 417, 929.

Gorter, F. J., dietary depigmentation of young black and pied rats, promoted by rapid growth, prevented and cured by ingestion of copper, A., 106. Influence of food factors on pellagra-like symptoms

in rats, A., 390.

Gorter, K., surface phenomena; films, A., 1458.

Gortner, R. A. See Brown, W. R.

Gortzen, I., effect of oils and ointment bases, especially cod-liver oil, on bacterial development, B., 298.

Goseco, F. P., control methods [for locusts], B., 211.

Goshi Kaisha Tsudashiki Pump Seisakusho. Sce Tsuda, Kijiro. Goslawski, W. Sce Kamieński, B. Goslin, R. Sce Hughes, G.

Gosman, B. A., polarographic studies with the dropping mercury cathode. LV1. Purity of ethyl ether, B., 87.

Goss, A. L. See Harger, R. N.

Goss, B. C., and U.S. Ordnance Engineers, disabling and incapacitating gas-generating chemical [of tear-gas type], (P.), B.,

Goss, F. R., relation between polarisability and internuclear distance for simple di-atoms, A., 781.

Goss, H. See Cole, H. H.

Goss, M. J., and Phillips, M., determination of lignin. I. Factors affecting the determination by the fuming hydrochloric acid method, B., 734. See also Phillips, M.

Goss, N. P., new developments in electrical strip steels characterised by fine grain structure approaching the properties of a single crystal, B., 551. Small plastic deformations in strip steel, B., 888.

Goss, W. H., $p_{\rm H}$ conversion chart, A., 697. Goss, W. P., X-ray equipment for studying metals at high temperatures, B., 328.

Gosset, J., and Delauney, S., experimental variations of sulphur elimination in dogs,

Gossner, B., cronstedite from Kisbánya, A., 959. Crystal form and molecular unit of nagyagite, A., 1484.

and Drexler, K., römerite from Pfaffenreuth, Obpf, A., 1227.

and Neff, \hat{H} ., crystallographic relationships between isomerides (ephedrine and ψ -ephedrine) and between dlcompounds and their components, A., 670. Crystallographic investigation of isomerides from combination of dand l-acids with d- and l-bases, A., 1450.

Gostynska, A. See Wierzuchowski, M. Goswami, M., Das-Gupta, H. N., and Ray, K. L., analytical uses of Nessler's reagent; detection of aldehydes; determination of glucose. I., A., 745.

and Das-Purkayastha, B. C., analytical uses of Nessler's reagent, A., 873. Analytical uses of Nessler's reagent; determination of monosaccharides and disaccharides; determination of fur-furaldehyde. II., A., 1133.

and Shaha, A., attempts to prepare cyclic glycerides; preparation of "tetrachlorodiglycerides" of dicarboxylic acids, A., 1360.

Gotman, J. D. See Glagolev, A. A.

Goto, H., importance of p_H in determination of molybdenum and vanadium by the 8-hydroxyquinoline method and solubility of 8-hydroxyquinoline in various solvents, A., 180.

XLIV. Tudur-Goto, $K_{\cdot \cdot}$, sinomenine. anine, a new alkaloid from Sinomen-

ium acutum, A., 88.

Ogawa, M., and Saito, J., sinomenine. XLII. (+)- and (—)-Bromothebenone,

and Shishido, H., sinomenine. XLIII., A., 351. Goto, R. See Nodzu, R.

Goto, S. See Ichihara, K., and Yamafuji,

Gotta, H., di-iodotyrosine and Lugol's solution in treatment of hyperthyroidism, A., 627.

Gottdenker, F., carbohydrate metabolism

in the guinea-pig, A., 103. and Rothberger, C. J., lactic acid metabolism of the heart in spontaneous insufficiency and in poisoning by sodium fluoride, iodoacetic acid, and euphylline, A., 1547.

Gottfried, S. P. See Natelson, S. Gotthoffer, N. R. See Epstein, C. H.

Gotting, H. E., and Browne, J. M., recovery of oil and spirit from shale, coal, etc., (P.), B., 777.

Gottlebe, P., experimental anamias and their suitability for the assay of antianæmic preparations. III. Collargolsaponin anemia in rabbits for the assay of injected liver extracts, A., 1293.

and Skibbe, W., experimental anemias and their suitability for the assay of anti-anamic preparations. II. Collargol-saponin anamia in rats, A., 1014. Gottlieb, H. B., replacement of chlorine by fluorine in organic compounds, A.,

See also Vanderbilt, $B.\ M.$ Gottlieb, J. B. See Eufinger, H. Gottlieb, J. S. See Hoskins, R. G.

Gottlieb, S. See Lang, R. Gottling, P. F., and Bearden, J. A., ruled-grating wave-length of the copper Ka_1 line, A., 399.

Gottsegen, G., influence of diuretics on the alkali reserve of blood, A., 1135. Gouaux, J. L. See Eaton, A. G.

Goubarev. See under Gubarev.

Goubeau, J., Raman effect in analytical chemistry, A., 949. See also Birckenbach, L.

Goudard, M. See Kirrmann, A.

Goudey, R. F., method of copper-sulphating reservoirs, B., 526.

Goudsmit, A., jun., origin of urinary creatinine, A., 1544.

Goudsmit, S., slowing down of neutrons, A., 542.

See also Bacher, R. F., Bayley, D. S., and Zahn, C. T.

Gough, H. J., and Clenshaw, W. J., cracking of boiler plates, B., 150.

and Cox, H. L., plasticity of bismuth

crystals, A., 785.

and Forrest, G., fatigue characteristics of three aluminium specimens, each containing from four to six large crystals, B., 237.

and Pollard, H. V., strength of metals under combined alternating stresses,

and Wood, W. A., fatigue of metals, using X-ray methods of precision, B.,

Gough, J. B., capacity and efficiency of beaters and refiners [for paper pulp], B., 784.

and Hill, H. S., Minton vacuum dryer in the newsprint industry, B., 980.

Gould, A. J., influence of temperature on severity of corrosion fatigue, B., 697. Gould, I. A., and Trout, G. M., effect of

homogenisation on characteristics of milk fat, B., 520.

Gould, N.A. See Young, C.B.F.

Gould, R. E., and Toole, M. G., development of a continuous electric ceramic kiln for high-temperature burning, B., 1103.

See also Toole, M. G. Gousehlbauer, G. See Loskiewicz, L.

Gouzon, B. See Bierry, H.

Govaerts, P., and Dicker, E., are the vasopressor substances found in the serum of nephritis also present in normal serum? A., 1009.

Govers, F. X., and Indian Refining Co., high-viscosity-index lubricating oil of low pour test, (P.), B., 261. Filtration of [paraffin] wax from oil, (P.), B., 263.

See also Texaco Development Corp. Gower, C. H. R., and Windsor-Bowen, E., production of anodic coatings on aluminium or aluminium alloys, (P.), B., 1050.

Goyal, R. K., $p_{\rm H}$ curve of certain smooth strains of tubercle bacilli, A., 525. Effect of concentration of glycerol and asparagine on weight-yields of B. tuberculosis and on pH of cultures in Sauton's medium, A., 641.

Goyle, D. N. See Yajnik, N. A. Grab, W., antirachitic activity of sterol derivatives, A., 1568.

Grabar, P., fractional ultrafiltration of the hæmocyanin of the snail, A., 746. See also Elford, W.J.

Grabbe, H. See Hansawerke Lürman, Schütte & Co.

Grabe, A. G., antifriction metal, (P.), B.,

Grabfield, G. B., and Prescott, B., nitrogen and sulphur metabolism in Bright's disease, A., 1141.

Grabois, B. See Carpenter, L. V.

Grabovski, V. A. [with Joffe, O. G.], impregnation of paper for production of air- and water-proof bags, B., 636.

and Jakimanski, V. V., water- and airproofing of packing paper, by intro-ducing bitumen and paraffin emulsions into the pulp, B., 1035.

and Muretov, M. V., use of alumina from nephelite products under industrial conditions, B., 191.

Gračanin, M., effect of temperature on mechanical analysis of soils, B., 246.
Gradusov, P. I., standard manganin con-

taining aluminium, and its properties, B., 237. a-Aluminium-bronze and its mechanical properties, B., 237.

Grady, C. B., gas-treating apparatus, (P.),

Grady, L. D., jun. See New Jersey Zinc Co. Graefe, E., significance of thermal conductivity of bitumen, B., 774. Ceresin from coke, B., 1026.

Graemiger, B., operation of a pneumatic pulveriser, (P.), B., 1184.

and Hephaest Akt.-Ges. für motorische

Krafterzeugung, operation of coal-dust furnaces, (P.), B., 303.
Graesser, F. R., correlations between loaf

volume, crumb characters, baking value, and diastatic activity in Canadian Western hard wheat flours, B., 663.

Graf, E. (Madrid), scheme for investigation of compounds containing the carbonyl group, A., 1133. Differentiation between aldehydes and ketones, A., 1133

Graf, Ernst, detoxification of [town] gas, B., 725.

See also Müller, W.J.

Graf, F., determination of water content of lard, B., 846.

Graf, G. See De Toni, G.

Graf, L., X-ray study of mechanism of corrosion in mixed crystals, B., 549. See also May, F.

Graf, O., testing and choice of cements for road construction, B., 372. Cement for concrete roads, B., 1095.

See also Atzler, E.

Graf, R. [with Perathoner, G., and Tatzel, M.], pyridylmethylamines, A., 1265. [with Tatzel, M.], reduction of acid

chlorides and anhydrides by chromous hydroxide, A., 1504.

Grafe, K., production of artificial fibres from proteins, B., 688.

Graff, G. U., pyrotechnic compositions for producing brown smoke, (P.), B., 253. Pyrotechnic compositions for producing

orange smoke, (P.), B., 253.
Graff, H. F. See Sykes, W. P.
Grafov, D., artificial leather "graleks."
B., 850. Incorporation of long vegetable fibre into rubber as a method of preparing leather substitutes, B., 981.

Grafskaja, Z. Sec Leontev, I. Grafton, W. F. Sec Igranic Electric Co. Graham, A. K., and Kolupaev, P. G., study

of aluminium-mercury-zinc anodes in acid zinc-plating baths, B., 328.

Graham, D. P. See Du Pont de Nemours & Co., E. I.

Graham, G. L. See Ackert, J. E.

Graham, H. W., distribution of plankton of the Pacific as related to physical and chemical conditions of the water, A., 184.

Graham, Herbert W., Case, S. L., and Jones & Laughlin Steel Corp., bimetallic article [lead-coated steel], (P.), B., 503. Bi-metallic [zinc-plated] articles, (P.), B., 1047. Bimetallic [tin-plated] articles, (P.), B., 1047.

Graham, J., prevention of corrosion on metals [iron or steel], (P.), B., 330.

Graham, J. I., and Lawrence, F., collection and analysis of air-borne dust during the driving of hard headings, B., 1185.

Sce also Skinner, D. G.

Graham, J. J. T., loss of pyrethrius during analysis of mineral oil-pyrethrum extracts by the Seil method, B., 812.

Graham, R. See Torrey, J. P. Graham, S. See Morris, N. Graham, W. A. See Banks, W. H., jun. Graham, W. R., jun., Jones, T. S. G., and Kay, H. D., precursors in cows' blood of milk fat and other milk constituents. A., 1012.

See also Kay, H.D., and McConachie, J.D.Grainger, J., low-temperature masking of tobacco mosaic symptoms, A., 258.

Grallert, W., measurement of conductivity of very dilute electrolytes, A., 799.

Gram, T., and Techno-Chem. Labs., drying of subdivided material, (P.), B., 2.

Grammaticakis, P., action of Grignard compounds on phenylhydrazones; preparation of s-alkylphenylhydrazines, A., 837.

Granath, L. P., and Stranathan, R. K., hyperfine structure and nuclear magnetic moment of Cs 1, A., 2. Magnetic moment of casium determined from hyperfine structure of the $6p^2P_1$ state, A., 398.

Grandadam, P. See Sureau, M. Grandchamp, L., stabilisation of wines in barrels, B., 902.

Grandfield, C. O., Lefebvre, C. L., and Metzger, W. H., relation between fallowing and the damping-off of lucerne seedlings, B., 467.

and Metzger, W. H., relation of fallow to restoration of subsoil moisture in an old lucerne field and subsequent depletion after reseeding, B., 1060.

Grandison, W. B., and Cruikshank, D. B., influence of pasteurisation on the vitamin-C, iodine, and phesphatase contents of raw milk, B., 664.

Grandone, P. See Smith, H. M.

Grandperrin, M., pinic acid, A., 1113. Grandpierre, R. Sec Merklen, L. Grandrud, B. W. Sec O'Meara, R. G. Granett, P., derris insecticides.

IV. Derris-root residues extracted with different solvents, B., 293.

See also Ginsburg, J. M.

Granger, L., reheating feeder heads of ingots and eastings by electric arc, B., 745.

Granhall, I. See Akerman, A.

Granjon, R., and Brillié, J., recent progress in welding, B., 599.

Granovskaja, A. M. See Nazarenko, V. A. Granovski, I. V. See Dain, B. J.

Grant, B. H. See Wetherbee, H. E. Grant, C. K. See Reimann, A. L. Grant, D. H. See McClave, J. A. E.

Grant, E. P. See Hill, H.

Grant, G. A., metabolism of galactose. III. (1) Lactose synthesis from (a) a glucose-galactose mixture, (b) phosphoric esters, by slices of the active mammary gland in vitro. (2) Effect of prolactin on lactose synthesis by the mammary gland, A., 1546. See also King, E.J.

Grant, J., ultra-violet light as an aid in the fluorescence test for bromine, A., 950. Ultra-violet light as an aid in papermaking, B., 94. Paper as a packing material for food-stuffs, B., 230. Fluorescence microscopy [in the examination of textiles], B., 448. Nephelometry as an aid in investigating mineral substances, B., 479.

and Meggy, F. A., sodium diethyldithiocarbamate as a reagent for certain micro-crystal reactions, A., 952.

Grant, M. See Fisher, C. H. Grant, R. F. See Wetherbee, H. E.

Grant, R. L., and Smith, Sydney, dimorphism of ergometrine, A., 351. See also Freyberg, R. H.

Grard, C., Legendre, R., and Lecœuvre, R., work of the French Commission on corrosion of metals used in aëronautics, B., 599.

Grard, J., cellulose triacetate, B., 14.

Grasse, P. P., and Lesperon, L., accumulation of acid dyes in the silkworm by different tissues according to the route of application, A., 97.

Grasselli Chemical Co., insecticidal and fungicidal compositions, (P.), B., 117. Treatment of platinum contact masses, (P.), B., 416. Leaded ammonium chloride crystals, (P.), B., 931. Silicic acid gels, (P.), B., 1039.

and Boller, E. R., molecular-addition compounds of manganese nitrate, urea, and water, (P.), B., 407. Oxidation of arsenious acid, (P.), B., 452. Flaked sodium bisulphate composition, (P.), B., 592. Engraver's etching acid of increased efficiency, (P.), B., 603. Etching zinc plates, (P.), B., 603. Mordant [for the line with the control of the line with the etching printing plates], (P.), B., 646. Arsenic acid, (P.), B., 1039. Easily soluble alkali [sodium] metasilicate, (P.), B., 1091. Flaked sodium chloride composition, (P.), B., 1091.

and Bousquet, E. W., contact insecticide, (P.), B., 900.

and Dykstra, H. B., soldering flux, (P.), B., 505.

and Frost, F. L., jun., preparation of zine chloride melts for granulation, (P.), B., 789.

and Hedenburg, O. F., lead arsenate, (P.),

and McQuaid, H. S., blanc fixe, (P.), B., 884. Crystallisation of manganese nitrate [tri-]hydrate, (P.), B., 1092. and Ridler, E. S., purification and

regeneration of platinum catalysts [for oxidation of sulphur dioxide], (P.), B.,

Salzberg, P. L., and Bousquet, E. W., parasiticides derived from higher alcohols, (P.), B., 387. and Schulze, J. F. W., zinc dust, (P.), B.,

796. and Schweitzer, W. K., flux for use in [soft] soldering, (P.), B., 154. Phosphoric acid metal-cleaning and rustpreventing solution, (P.), B., 505.

Grasselli Chemical Co., and Vana, C. A., phosphoric acid purification by solvent extraction, (P.), B., 18. Deodorisation

of lactates, (P.), B., 920. and Westbrook, L. R., ammonium sulphate, (P.), B., 494. Purification of zinc salt solutions, (P.), B., 1092.

and Weygandt, A. S., refractory material for use in metal castings, (P.), B.,

Grasset, E., and Zoutendyk, A., antigenic properties of detoxicated Indian and African venoms: cross-reaction exerted by the respective antivenins, A., 359.

Zoutendyk, A., and Schaafsma, A., toxic and antigenic properties of S. African snake venoms with special reference to multi-valency of S. African antivenin, A., 359.

See also Pirie, J. H. H.

Grasshof, H. See Tschesche, R. Grassmann, E. See Diebner, K.

Grassmann, P., micro-resistance of superconductors, A., 1189.

Grassmann, W., and Arnim, K., colour reaction of isatin with pyridine and acetic anhydride, A., 612.

and Bender, R., affinity of vegetable tanning for hide substance, B., 162.

and Riederle, K., constitution of gluto-kyrin. III. Collagen, A., 619. Graton, L. C., and Fraser, H. J., systematic

packing of spheres, with particular relation to porosity and permeability, A., 273.

and Harcourt, G. A., spectrographic evidence on origin of ores of Missis-

sippi Valley type, A., 308.

Gratschev, G. P. See Melnikov, N. N., and
Nametkin, S. S.

Gratschev, I. V. See Joffe, J. S.

Gratscheva, O. F., petrographical description of tertiary coals from the Artemov mines in the Far-Eastern district, B., 4. Gratton, G., and Simonsen, J. L., Snitter's

camphenilene, A., 80.

Gratzianski, N. N., aluminium plating of nickelin, B., 202. Electroplating with metals and alloys in molten salts, B., 890.

See also Plotnikov, V. A.

Grau, C. A., emetine camphorsulphonate, A., 1278.

Grau, G. See Rother, P.

Graubard, M., and Nelson, J. M., tyrosinase action on mono- and di-hydric substrates, A., 109. Quantitative measurement of tyrosinase, A., 244.

Graubner, W., investigations [on sera] in the ultra-violet, A., 358.

See also Behrens, B.

Graue, G., and Köppen, R., surface development of active zinc oxide, A., 1064.

Graul, F., conductivity of blood in the wave-length region 6-25 m., A., 94.

Grave, G. See Ammon, R.

Grave, T. B., Harris, S. E., and Christiansen, W. G., phenylmercury nitrate and some other phenylmercury salts, A.,

Gravell, J. H., electrolytic coating of metals, (P.), B., 331.

and Amer. Chem. Paint Co., material for coating metal [sheet for painting], (P.), B., 281. Material for providing metal with a paint-receptive surface, (P.), B., 651.

Graves, G. De W. See Du Pont de Nemours & Co., E. I.

Graves, H.C. H., and Vitamins, Ltd., biscuits for therapeutic purposes, (P.), B., 953.

Gravot, M. Sco Hérissey, H.

Grawe, O. R., ice as agent of rock weathering, A., 1088.

Gray, A. N. See Bell Telephone Labs. Gray, A. R. See Riley, H. L.

Gray, B. See Adams, A. E. Gray, C., device for testing sp. gr. of gases, (P.), B., 49.

Gray, E. See Dubilier Condenser Co. Gray, F. W., Clow, A., and Cruickshank, J. H., improvements in the Curie-Chéneveau magnetie balance, A., 182. and Cruickshank, J. II., diamagnetic study of structure, A., 19.

Gray, G. R. See Weiser, H. B. Gray, H. Le B. See Kenyon, W. O.

Gray, I., treatment of plumbism, A., 518. and Melnick, J., gastric acidity in pulmonary tuberculosis, A., 367.

Gray, J. See Cuthbert, F. P. Gray, J. A., and Henderson, W. J., β rays of high energy, Λ ., 540.

and Hinds, J. F., γ -rays of radium-E, A., 541. Diffusion of radioactive atoms,

Gray, K. W. See Edwards, W. D. Gray, M. P., and Industrial Furnace Corp., heat treatment of white east iron, (P.), B., 601.

Gray, P. A., treatment of diabetes mellitus with insoluble insulin compounds, A., 1565.

and Burtness, H. I., hypoglycamic

headache, A., 505. Gray, P. H. H., and Atkinson, H. J., microbiology of Appalachian podsol soils. II. Seasonal changes in microbial activity, B., 291.

and Taylor, C. B., microbiology of podsol soil profiles. II. Laurentian soils, B.,

70.

Gray, P. P., and Stone, I. M., determination of carbon dioxide in beer and carbonated beverages, B., 389.

Gray, R. D. See Mason, C. M.
Gray, S. C. See Melville, H. W.
Gray, T. T., and Gray Processes Corp., treatment [refining] of petroleum hydrocarbons, (P.), B., 777. Refining of hydrocarbons, (P.), B., 1080.

Gray, W. H. See Buttle, G. A. H.

Gray Processes Corporation. See Gray, T. T., Nisson, P. S., and Welsh, M. J. Grayslake Gelatine Co. Sco Epstein, C. II. Grayson, R. V., freezing fresh milk, B., 425. Graziadei, A., saline systems of Chilian nitrate deposits, B., 1091.

Graziadei, H. T. Sco Hess, V. F.

Greaney, F. J. Sco Machacek, J. E. Great Western Electro-Chemical Co. Sco Bender, H., Hirschkind, W., and Ramage, W. D.

Greathouse, G. A., unfreezable and freezable water equilibrium in plant tissues as influenced by sub-zero temperatures, A.,

Greaves, H. J., filtering apparatus for dewatering of slurry and clarification of water, (P.), B., 3. Filtering media, (P.), B., 624. Filtration of liquors from coal washing, (P.), B., 819.
Greaves, J. E., can Azotobacter chroococcum

synthesise vitamiu-D? A., 113.

and Anderson, A., sulphur requirements of Azotobacter chroococcum, B., 516. Influence of soil and variety on the copper content of grains, B., 1115. See also Maynard, E. J.

R. H., properties of low-Greaves, nickel steels containing manganese, B.,

Greaves, R. I. N., and Adair, (Mrs.) M. E., preservation of sera by desiccation in the frozen state without the use of refrigerants, A., 1531.

Greaves-Walker, A. F., and Owens, C. W., jun., [thermal] expansion of pyrophyllite,

B., 1094. Grebe, J. J. Sco Dow Chem. Co.

Grebenschtschikov, B. N., internal latent heat of vaporisation and orthobaric densities, A., 1190.

Gredy, (Mlle.) B., Raman effect and organic chemistry: isopropylacetylene, isopropylethylene, and some of their derivatives; comparison of Raman spectra of othylenic alcohols and their cis and trans derivatives; classification of radicals R in compounds CHPh.CHR, A., 10, 923. Comparison of the Raman spectra of Δ^{β} -octena-ols and some of their cis- and transderivatives, A., 407. Comparison of Raman spectra of cis- and trans-cinnamyl derivatives, A., 546. Preparation of cis- and trans-ethylenic alcohols and their derivatives; comparison of their physical properties, Ā., 963.

and Risseghem, (Mlle.) H. van, bromides obtained by action of phosphorus tribromide on propylvinylearbinol, and the corresponding acctates, A., 702. Raman effect and organic chemistry; allyl isomerism in the case of the bromohexenes, A., 702.

Greeley, P. O., Bergman, H. C., Tyler, D. B., and Doury, D. R., measurement

of insulin action, A., 1564.

Green, A. T., and Clews, F. H., refractories for use in carbonising furnaces, B., 739.

See also Clews, F. H., Rigby, G. R., and Rowden, E.

Green, C. A., toxic fraction of scarlatinal streptoccoei, A., 115. Green, C. G. See Green, M. W.

Green, D. E., antirrhinum rust. II. Results of spraying and dusting with fungicides, B., 294.

Green, David E., a-glycerophosphate de-

hydrogenase, A., 636.

and Brosteaux, J., lactic dehydrogenase

of animal tissues, A., 1149. Green, D. F., Morris, M. L., Cahill, G. F., and Brand, E., canine cystinuria. II. Analysis of cystine calculi and sulphur distribution in the urine, A., 881.

Green, D. H. See Finder, H. J.
Green, E. L., check valve, A., 306.
[Adjuvant] spray material, (P.), B., 388. Active or toxic spray material, (P.), B., 388.

See also Goldsworthy, M. C.

Green, E. W. See Garner, C. S. Green, F. G. See Whitby, G. S.

Green, F. W., heat-exchange tubes, (P.), B., 2.

Green, H., light-transmittance of oiled and waxed papers, B., 94. See also English, H.

Green, H. E., ultra-violet absorption spectrum of Nova Herculis 1934, Λ., 1311.

Green, H. F., [penetrating] lubricating preparations, (P.), B., 779. Oils used for lubricating or other purposes, (P.), B., 1139.

Green, H. H., minerals in relation to diseaso of the larger domesticated animals, B.,

Green, H. J., and Green & Co., Ltd., H. J., materials for preparation of non-alcoholic beverages, (P.), B., 811.

Green, H. L., size-frequency of particles in mineral dusts, A., 1198.

Sce also Whytlaw-Gray, R.

Green, H. M. Sco Allcroft, R. Green, J. B., Paschen-Back effect of hyperfine structure. III. Separation of ¹⁹⁹Hg, A., 1040.

and Loring, R. A., Paschen-Back effect. III. ²S²P multiplets in strong fields. IV. Mutual spin-orbit interaction in two-electron spectra, A., 653.

Green, J. R., effect of petroleum oils on respiration of bean plants, apple twigs and leaves, and barley seedlings, B., 1061.

Green, J. W. See Paesu, E. Green, M. F. See McDonald, C. H.

Green, M. W., Green, C. G., and Beal, G. D., constituents of Cascara sagrada extract, II. Bio-assay, B., 475.

Green, R. G., nature of filterable viruses, A., 249.

See also Buggs, C. W. Green, T. G., and Hilditch, T. P., polyethenoid acids of the n-octadecane (C18) series present in aquatic animal oils, B., 204.

Green & Co., Ltd., H. J. Sco Green, H, J.

Greenawalt, J. E., incinerator furnace, (P.), B., 351.

Greenbank, G. R., oxidation of fats in storage, B., 798.

Greenbaum, F. R., preparation of calcium or ammonium salts of iodoxybenzoic acid, A., 467.

Greenberg, D. M., influence of liver poisons on action of parathyroid extract, A., 1554. and Larson, C. E., potentiometric deter-

mination of calcium in solutions, A.,

and Tufts, E. V., variations in magnesium content of the normal white rat with growth and development, A.,

Greenberg, L. A. See Haggard, H. W. Greenberg, M. M., effect of hydrazine on production of ketonic substances in the phloridzin-intoxicated animal, A.,

Greene, C. H., sensitiveness of magnesium uranyl acetate reagent to sodium and potassium, A., 1352. Qualitative analysis of the alkaline-earth and alkali groups, A., 1352.

and Frizzell, L. D., precipitation of silver chloride. II. From silver nitrate and hydrochloric acid, A., 578.

and Voskuyl, R. J., explanation of the relatively large concentration of O13

in the atmosphere, A., 698. See also Hartung, E. F.

Greene, G. U., occurrence of sphalerite at Ellsworth, Ohio, A., 307.

Greene, H., and Snow, O. W., effect of irrigation and of dry fallow on heavy, base-saturated soil, B., 245.

Greene, H. C. Sce Wenck, P. R. Greene, J. A. Sce Clark, B. B.

Greene, R. A., composition and uses of the fruit of the giant cactus (Carnegiea gigantea) and its products, A., 1035. See also McGcorge, W. T.

Greene, R. D., and Black, A., extraction of vitamin- B_1 from adsorbates, A., 1429. Greenfield, E. W., residual moisture in cellulose dielectrics, B., 1050.

Scc also Pfund, A.H.Greenfield, G.J. Scc Buckley, W.E.Greenfield, R.E., Baker, H.R., and Staley Manufg. Co., A. E., starch, (P.), B.,

Greenfield, S. N., naphthenate driers, B., 510.

Greenfield, T. See Hyman, J. Greengard, H. See Schmidt, C. R.

Greenhalgh, G., disintegrating or grinding

machines, (P.), B., 1023.

Greenhill, A. W., relative amounts of protein and non-protein nitrogenous constituents occurring in pasture herbage, and their significance in grazing of the herbage by stock, B., 473. Effects of partial field drying on composition of freshly-cut grass, B., 617.

and Pollard, N., colorimetric determination of phosphoric acid in grass and

similar materials, B., 71.

Greenhill, W. L., effect of rate of air circulation on rate of drying of timber, B., 1095.

Greening, C. B., oxidation of soil humus with potassium permanganate, B., 1059.

Greenleaf, R. M., and Frosted Wool Process Co., drying clean wool, (P.), B., 689. Apparatus for removing extraneous matters from wool, (P.), B., 689.

Greenlee Bros. & Co. See Abramson, J, H.

Greensfelder, B. S. See Bataafsche Petroleum Maats.

Greenslade, R. M., laboratory trials of wetters against woolly aphis (Eriosoma lanigerum, Hausm.), B., 38. Treatment of dormant nursery stock against woolly aphis, B., 899. and Massee, A. M., impregnation of

tree-banding materials. II. Appleblossom weevil and codling-moth ex-

periments, 1935, B., 899.

Massee, A. M., and Thomas, F. J. D., apple-blossom weevil experiments, 1934; impregnation of tree-banding

materials, B., 37. Greenslade, T. B. See Curtman, L. J.

Greenspon, E. A., anti-pernicious anæmia principle in stomach. I. Method to improve stomach preparations, A., 1415. Greenstein, A. W. See Seymour, W. J.

Greenstein, J. P., multivalent amino-acids and peptides. V. Cystinecyamidene. VI. Action of proteolytic enzymes on synthetic substrates, A., 194, 379. Relation between dissociation constants of substituted aliphatic acids and the distance between the dissociating and the substituted groups, A., 1069.

and Wyman, $J_{\cdot,\cdot}$, $jun_{\cdot,\cdot}$, dielectric constant and electrostriction of amino-acids and

peptides, A., 549.

Greenstone, A. See Ehret, W. F. Greenstreet, C. J. See Swallow, J. Greenwald, H. P. See Godbert, A. L., and Rice, G. S.

Greenwood, D. A. See Kempf, C. A. Greenwood, D. N., chemotherapy of experimental trichiniasis, A., 1154.

Greenwood, E. L. See Brit. Celanese. Greenwood, H. D. See South Metropolitan

Greenwood, M. L., vitamin-B content of raw pinto beans, B., 297.

Greep, R. O., Fevold, H. L., and Hisaw, F. L., effects of two hypophyseal gonadotropic hormones on the reproductive system of the male rat, A., 1427.

See also Fevold, H. L.

Greer, P. S. See Carbide & Carbon Chemicals Corp.

Greeves, F. D., and Johnston, J. E. McF., glow discharge through oxygen, A., **537.**

Gregersen, M. I., and Wright, L., effect of intravenous injection of sucrose and glucose on reducing power of cerebrospinal fluid, before and after hydrolysis, A., 228.

See also Bullock, L. T.

Gregg, A. W., Frank, R. H., and Bonney-Floyd Co., glass-machine alloy, (P.), B., 998.

Grégoire, P. E., effect of thyroxine on glycolysis of muscular tissue, A., 903. Avitaminosis-B and muscular glycolysis, A., 904.

See also Mutsaars, W.

Gregorius, J. S., modulus of rupture and thermal shock-resistance [of glass] at elevated temperatures, B., 989.

Gregory, F. E., Hallows, R. L., and Eagle-Picher Lead Co., treatment of lead sulphide mineral, (P.), B., 834.

McClaren, J. I., Hamilton, P. R., and Eagle-Picher Lead Co., basic lead sulphate, (P.), B., 1151.

Gregory, F. G., and Baptiste, E. C. D., plant nutrition. V. Carbohydrate metabolism in relation to nutrient deficiency and to age in barley leaves, A., 1164.

and Purvis, O. N., vernalisation, A., 1431.

Gregory, H. S., determination of the coefficient of accommodation from aspects of the temperature drop effect, A., 1191.

Sce also Newell, W. C.

Gregory, R. A., determination of inositol in animal tissues, A., 259.

and Style, D. W. G., photo-oxidation of

methylene iodide, A., 572.
Gregory, T. G. See New, G. A.
Gregory, W. C. See Scott, W. W.

Greider, C. E. Sce Hercules Powder Co.,

and Supplee, G. C. Greider, H. W., and Carey Manufg. Co., P.,

recovery of magnesium hydroxide, (P.), B., 101.

Greig, J. R., calcium therapy in "staggers" in the bullock, A., 506.

Greig, J. W., Merwin, H. E., and Posnjak, E., separation planes in magnetite, A., 1483.

Greig, (Miss) M. See Compton, J.

Greigov, E. S., linseed oil and composition of paints, B., 108. Preparation of paints and pigments, B., 242. Wood preservation, B., 499.

Greinacher, H., further hydroelectric counter for elementary rays and photoelectrons. II. and III., A., 182. New counting methods for elementary rays and photo-electrons, A., 697. Characterisation and designation of new counters for elementary rays and photoelectrons; spark counter, A., 697.

Greis, F., and Ruppik, H., influence of hotgalvanising on the alternate bending strength and the uniformity of the tensile properties of drawn steel wire, B., 1156.

Greisheimer, E. M., George, E., and Gilman, L., fasting blood-sugar in rats, A., 875.

and Hoffbauer, F. W., influence of diet on glucose tolerance of the dog, A.,

Greick, W. P. M., acid milk-food product, (P.), B., 714. Cheese-type spread of butter-like consistency, (P.), B., 714.

Gremmer, W., normal element of small potential, A., 1481.

Grempe, P. M., corrosion of fuel tanks, B., 374.

Grenagle, J. B., Varney, W. W., and Universal Alloys, Inc., [iron] alloys containing yttrium metals of the rare earths, (P.), B., 795. Resistor, (P.), B., 844.

Grene, G. H. S., and Wild-Barfield Electric Furnaces, electric heating elements for ovens, furnaces, or other apparatus, (P.), B., 284. Electric furnaces, (P.), B., 1213.

See also Coleman, J. P. D.

Grengg, R., technically important propertics of soils and rocks; soil types, their classification, recognition, and important properties, B., 805.

Grenier, G., rail-steel ingots, B., 838.

Grenier, R., solid carbon dioxide, B., 833. Greninger, A. B., orientation in peritectic structures, A., 675. Gresham, W. F. Sco Bent, H. E.

Grethe, T., coffee free from caffeine, (P.),

B., 1067.

Grether, E. F. See Dow Chem. Co. Grether, W., determination of atomic distances in thallium and tellurium halides by electron diffraction, A., 670.

Gretler, O., wet treatment of textile goods, (P.), B., 831.

Gretschuschnikov, A. I., toxins of rust (Puccinia), A., 1306. Physiology of the incubation period in rust infections, A.,

Gretschutschina, O. See Tschesnokov, V.

Grevé, H. See Brückner, H.
Greville, G. D., fumarate and tissuerespiration. I. Effect of dicarboxylic acids on oxygen consumption, A., 884.

Grévy, J., influence of alkalinity of glass on viscosity of dilute solutions of cellulose nitrate in ether-alcohol, A., 679.

Grew, K. E., and Atkins, B. E., thermal diffusion in deuterium mixtures, A., 788.

Grewe, R., antineuritic vitamin. V., A., 1275. Constitution of ancurin (vitamin- B_1), A., 1566. See also Windaus, A.

Grey, D. W. J., Balimbing Mine, West Coast of Sumatra, B., 324.

Gribnau, F. B., Kruyt, H. R., and Ornstein, $L.\ S.$, validity of the Lambert-Beer law in hydrophobic colloids, A., 795.

Gribov, B. I., and August, V. G., hydrated sodium silicates and dry silicate paints, B., 190.

Gridney, V., and Kurdjumov, G., effect of nickel on limits of the a-phase of copper-aluminium alloys, A., 559. Transformations in eutectoidal copperaluminium alloys, A., 1061. See also Svechnikov, V. N.

Griebel, C., abnormal fluorescence of human milk, A., 1405. Rapid differentiation of ordinary and caffeine-free coffee, B., 1066.

Grieg, E. D. W., Rooyen, C. O. van, and Hendry, E. B., mclano-precipitation serological reaction in malaria, A., 365. Grieg, J. L. See Georgi, C. D. V.

Grieger, H., apparatus for measuring ionic spectrum [of the atmosphere], A., 955.

Griendt, G. H. van de. See Bataafsche Petroleum Maats.

Grieneisen, II. See Fischer, Werner, and Henrici, A.

Grierson, R. See Mount, S. C. Griese, A. See Warburg, O.

Griessbach, R. See Luther, M. Griffeth, R. L. See Hurd, C. B.

Griffin, A. E., water for the paper industry, B., 1134.

Griffin, C. W., and Saaf, M. von, approach towards the limit in the process of extraction, A., 1355.

Griffin, F. C., treatment of flowing supplies of liquid with treating reagents, $(\tilde{P}.), \tilde{B}., 81.$ Griffin, H. P., and Richardson, R. P., shoe

polish, (P.), B., 1222. Griffin, R. C., and McKinley, R. W., tensile and bursting tests [for paper], B., 186. Griffith, C. L., and Griffith Labs., solid

flavouring composition, (P.), B., 123. Hall, L. A., and Griffith Labs., solid seasoning composition containing capsicum and [sodium] chloride, (P.), B., 394. Non-bleaching solid seasoning composition, (P.), B., 394. Stabilised solid seasoning composition, (P.), B., 394.

See also Hall, L. A.

Griffith, F. E. See Craig, W. A. Griffith, P. W., and Amer. Cyanamid Co., cyanamide[-formaldehyde] resin, (P.), B., 1110.

Griffith, R. H., promoter concentration and catalysis, A., 686.

and Hill, S. G., homogeneous catalytic oxidation of benzene, A., 804.

See also Crawley, B., and Gas Light & Coke Co.

Griffith, R. O. See Durrant, G. G.

Griffith, W. H., growth studies. III. Avitaminosis- B_1 and B_2 in excectomised rats. IV. Vitamin- B_1 and B_2 contents of body tissues of normal and experimental rats, A., 529.

Griffith Laboratories, Inc., curing salt [for

meat], (P.), B., 428. See also Griffith, C. L.

Griffiths, E., apparatus for study of heat-insulating materials for use at low and high temperatures, B., 719.

See also Awbery, J. H., and Powell, R. W.Griffiths, F. A. See Brown, F. E. Griffiths, F. P. See Stansby, M. E. Griffiths, J. H. E. See Collie, C. H.

Griffiths, W. J. See De Wesselow, O. L. V. Griffon, See Manceau, P.
Griffon, H., renal threshold of potassium,

A., 371.

Grifoll, I. See Jimeno, E.

Grigaut, A. See Laroche, G. Griggs, A. R., low-temperature carbonisation, B., 433, 434.

and Wallace, G. W., manufacture of gas by the complete gasification of coal,

(P.), B., 1031. Griggs, F. E. P., metal cleaning, B., 1210. Grignard, V., and Ritz, J., action of organomagnesium compounds on phenolic ethers, A., 980.

Grigorev, N. V. See Molsak, I. E. Grigoriev, A. P. See Davankov, A. B. Grigoriev, D. P., optical diagram for

magnesium-iron mica (phlogopite), A., 449. Crystallisation of hornblende and mica from artificial silicate melts, A., 584. Immiscible silicate melts, approximating in composition to that of natural rocks, A., 1087.

Grigoriev, P. N., fluorinated acid-resistant materials, B., 836.

and Chomtschuk, A. A., preparation of

zeolites, B., 931. Grigorieva, N. E. See Kiprianov, A. I. Grigorieva, N.S. See Palladina, O.K.

Grigorov, O. N., Markovitsch, A. V., Shukov, I. I., and Nikolski, B. P., electro-osmotic purification of water,

Grigorovitsch, A. N. See Kireev, V. A., Menschikov, G., and Tarasenkov, D. N. Grigorovski, A. M. Seo Magidson, O. J.

Griis, O. See Schultzer, P.

Grill, E., phosphate of iron and manganese from Olgiasca pegmatites, A., 958. Minerals of Bavena granite: fayalite, A., 1357.

Grillet, L., and Duffleux, M., spectrum of the first discharge through nitrogen peroxide, A., 405.

See also Duffleux, M.

Grimard, L., specific antigen and anti-body in urine of pregnant women, A., 498. Anti-complementary action of the urine of pregnant and of normal women, A., 1285.

See also Nattan-Larrier, L.

Grimberg, A. See Mutermilch, S.

Grimm, H.G., and Metzger, H., preparation and properties of carbon selenide, A., 946.

Grimm, J. See Wimmer, G. Grimme, W., and Tramm, H., acetylene, (P.), B., S8.

Grimmendahl, F. See Demann, W.

Grimmer, W., and Lange, W., chemistry of cheese-ripening. III. Caseoglutin, A.,

and Schmid, J., biochemistry of microorganisms. VII. Bacterium linens,

Grimmett, R. E. R., pampas grass as fodder, B., 346.

Grimshaw, L. C., manganese and copper additions to "18'-8" Armstrong metal, B., 64. Welding together of metals by application of heat and pressure, B., 599.

Grinberg, F. L. See Kusner, T. S. Grindley, J. See Bury, C. R. Grindley, R. See Kenner, J.

Grindrod, G. E., stabilisation of beverages and other liquids, (P.), B., 297.

and Grindrod Process Corp., apparatus for treating foods, (P.), B., 1016. Treatment of sulphur, (P.), B., 1039.

Grindrod Process Corporation. See Grin-

Grine, H. A., Read, J. G., Wagner, H. A., and Philadelphia & Reading Coal & Iron Co., automatic furnace, (P.), B., 959. Grinev, D., Gorfunkel, D., Chapiro, E., and Gurvitsch, J., influence of various sources of carbon on nitrogen metabolism of

B. perfringens, A., 1027. Nitrogen metabolism of B. tetanus, A., 1028. Comparisons of strains of different toxicity, A., 1028. Gring, J. L., and Clark, G. L., apparatus for

spectroscopic chemical analysis, A., 1223. Grinstein, M., crystallisation of serumalbumin from different species, A., 1400. Grinstein, W. See Kalnin, P. Grinten, L. P. F. van der, and N. V. Chem.

Fabr. L. van der Grinten, reflex [photographic] copies, (P.), B., 1181.

Grinten, W. van der, and Brasseur, H., use of a Geiger-Müller counter for study of diffraction of X-rays by a gas, A., 667.

See also Degard, C.

Grisard, J., and Baptist, F., artificial seasoning of wood, (P.), B., 644.

Grischkievitsch-Trochimovski, and Sporzyński, A., derivatives of ϵ -azidohexoic acid, A., 973.

Griscom-Russell Co. Seo Price, J.

Grisebach, L., polarised fluorescence of organic dye solutions, A., 1181.

Grivet-Meyer, (Mme.). See Auger, P.

Groag, W. See Bernhauer, K. Groak, B., improvements in the micro-Kjeldahl method, A., 396.

Grochtmann, G. See Büssem, W. Grodzovski, M. K., and Tschuchanov, Z. F., gasification of solid fuels in the oxygen zone, B., 434. Primary reactions of the combustion of carbon, B., 1187.

Groebe, F., and Reiner, S., glue as electric insulator, B., 460.

Grönblom, B. O., singular magnetic poles, A., 266.

Groenewald, J. W., influence of rations low in minerals on composition of blood and milk of cows, and on blood of

their progeny, A., 232.
See also Du Toit, P. J., and Malan, A. I.
Groenewoud, P. See Freudenberg, K.
Groenewoud, P. W. G., and Robinson,

Robert, synthesis of bicuculline. I., A., 488. Groenhof, J. P., refractometric determination of fat in copra, B., 892.

Groenier, W. L. See Young, T. F. Grönwall, A., precipitation of serum-proteins with chloroform, A., 92. Distribution of isongglutinins in blood-scrum fractionated by electrophoresis, A., 359.

Groetsma, F. See Marlow, H. W. Groetzinger, G., thermal conductivity of electrets, A., 1191.

and Lichtschein, J., crystal photo-effect and rectifying action in the bulk of the crystal, A., 1050.

See also Frei, H.

Grof, F. See Brunner, O. Groff, F., and Bakelite Corp., artificial [modified alkyd] resin, (P.), B., 653. See also Carbide & Carbon Chem. Corp.

Groggins, P. H., preparation of aryl alkyl ketones by the Friedel-Crafts reaction, (P.), B., 91. Preparing products according to the Friedel-Crafts re-

action, (P.), B., 632.
and Nagel, R. II., condensation of organic acids and their anhydrides according to the Friedel-Crafts reaction, (P.), B., 537.

Nagel, R. H., and Wallace, H. A., aryl alkyl ketones, (P.), B., 442.

and Stirton, A.J., amination by ammonolysis; effect of ammonia concentration, B., 1080.

See also Newton, II. P.

Groh, C., effect of interval between milking

on yield and fat content of milk, B., 296. Groh, E., and Schmidt, R., continuous production of water-gas and synthesis gas, B., 1027.

See also Schmidt, R. Groh, J. See Proks, J.

Grohnwald, (Frl.) M. See Boehm, T. Groll, H. P. A. See Bataafsche Petroleum

Grollman, A., and Firor, W. M., rôle of the pituitary in experimental chronic adrenal unsufficiency, A., 230.

Gronow, H. E. von, determination of temperature of maximum density of gels, A., 796.

and Schwiete, H. E., heat requirement for burning limestone, B., 1090.

Groos, O. See Ardenne, M. von.

Grootten, O., and Bezssonoff, N., action of vitamin-C on diphtheria toxin and the sensitivity of the whooping-cough

bacillus to quinol and vitamin-C, A., 765. Groover, H. W., gas firing; town gas as a fuel for oil boiling and gum running, В., 676.

Gros, O., and Haas, H. T. A., antagonism

of narcotics to cardiazole, A., 1293. Gros, W., significance of lower fatty acids normally present in serum in the Takata reaction, A., 1015.

Groschev, L., Dobrotin, N., and Frank, J., stereo-comparator for work with Wilson's chamber, A., 1481.

Groscurth, G., and Havemann, R., carb-

hæmoglobin, A., 1007.

Grosh, E. B., Fish, V., Cohen, S. A., and Paraffine Companies, Inc., [finishing coat for] covering material, (P.), B., 381.

Gross, B., analysis of ultra-radiation, A., 265. Electrical conductivity of the zeolites, A., 959.

and Oliveira, C., free lactic acid in fresh milk, A., 501.

Gross, Bernard. See Gardner, W. H.

Gross, G., antique colouring [of metals], B., 198.

Gross, H. See Junghänel, R.

Gross, H. H. See Texaco Development Corp., and Texas Co.

Gross, J. See Dean, R. S.

Gross, P., interaction between ions and molecules in solutions, A., 1194.

and Steiner, H., rate of reaction of deuterium with hydrogen chloride, A.,

Steiner, H., and Krauss, F., decomposition of diazoacetic ester catalysed by protons and deuterons, A., 804.

Steiner, H., and Suess, H., inversion of sucrose in mixtures of light and heavy water, A., 802.

and Suess, H., thermal decomposition of dioxan, A., 1208.

and Wischin, A., distribution of pieric

acid between benzene and mixtures of light and heavy water, A., 791.

Gross, P. M. See Darkis, F. R., and Dixon, L. F. Gross, R. Seo Fontès, G.

Gross, S. T. Seo Yost, D. M.

Gross, W., and Kremser, L., yield of primary tar from different density fractions of an East Elbe brown coal, B., 1027.

Gross, Werner. See Ohle, H.

Gross, W. H. See Dow Chem. Co., and Winston, A. W.

Grosseup, C. G. See Thomas, C. A.

Grosse, A. von, and Agruss, M. S., γ -ray neutrons and the Fermi proton effect, A., 1045. Fermi proton effect, A., 1045.

and Ipatiev, V. N., reaction of paraffins with aromatic hydrocarbons (destructive alkylation), A., 322.

See also Ipatiev, V. N., and Universal Oil Products Co.

Grosse-Brockhoff, F., Schneider, M., and Schoedel, W., vasomotor interference in the vascular network of muscles during experimental hyperamia produced by vaso-dilator substances, A., 1551.

Grosser, G., northern weathering [of soilforming rocks], B., 1170.

Grossfeld, H., permeability of tissue cells,

A., 1292.

Grossfeld, J., detection of rape oil in edible oils, B., 28, 557. Determination of butyric acid value [of fats], B., 334. Tests for butter and margarine fats, B., 892. Inconsistencies in determination of A- and B-values [of fats], B., 1105. Persipan and marzipan, B., 1121. Simplified testing of butter fat-margarine mixtures, B., 1123. Analysis of edible fats, B., 1215.

and Kanitz, H. R., composition of commercial beet syrup, B., 613.

Grossman, J. W. See Peters, H. C.

Grossmann, B. E., manufacture of light building slabs and of filling material or aggregates adapted for use in their production, (P.), B., 500.

Grossmann, R., measurement of strong polonium preparations by their ionisâtion in pure nitrogen, A., 918.

Grote, A., comparative physical tests of cotton and "vistra" yarn, B., 363. Grote, I. W., recent analytical methods with

special applications in textile analysis, B., 184.

and Parke, Davis & Co., compositions of matter; preparation from the pituitary gland of substances having antidiuretic activity, (P.), B., 763. Sec also Kamm, O.

Grotefeld, A. W. See Perry, H.

Grotepass, W. See Bergh, A. A. H. van den, and Kamerling, A. W. C. G.

Groth, B., determination of moisture in wood fuel, B., 49.

Groth, W., photochemical investigations in the extreme ultra-violet, A., 1215.

Grothaus, C. E., and Dains, F. B., reactions of methylene derivatives containing cyanide, thiocyanate, or sulphonyl

radicals, Λ ., 1274. Grothey, W., intensity ratio $E_{\alpha\alpha'}/E_{\beta\gamma}$ and yield coefficients u_{aa} and $u_{\beta\gamma}$ for the characteristic K-radiation from Co (27) to Te (52), A., 539.

Grottanelli, F., new detonators for explosives, B., 717.

Grotts, P. E. See Thiessen, G.

Grounds, A., coal preparation, B., 529. Grove, S. F., and Bower Chem. Manufg. Co., H., iron blues, (P.), B., 652.

Grove Mill Paper Co., Ltd., and McNeill, D., greaseproof paper, (P.), B., 982.

Groven, F. J., and Ford Motor Co., paintbaking process, (P.), B., 462.

Grover, H. J. Seo Romanoff, A. L.

Groves, A. B., fungicides in relation to scab control and spray russet [of apples], B., 247.

Groves, K., and Marshall, James, determination of spray coverage on apples, B.,

See also Overley, F. L.

Groves, L. G., measurement of pH values, A., 949.

Groves, W. W. See I. G. Farbenind., and Soc. Chem. Ind. in Basle.

Grozin, B. D. See Nekruitui, S. S. Grubb, H. M., Chittum, J. F., and Hunt, H., liquid ammonia as a solvent. VI. Dielectric constant of liquid ammonia, A., 779.

See also Hunt, H.

Grube, G., detection of intermetallic compounds, A., 24. Investigating constitution [of alloys], A., 151.

Bayer, K., and Bnmm, H., electrical conductivity and equilibrium diagram for binary alloys. XXII. System palladium-manganese, A., 1455.

Grube, G., and Doetsch, E., behaviour of the cadmium electrode in alkaline

nickel-cadmium accumulators, A., 799. Heller, A., and Herrmann, W., ternary system manganese arsenate-arsenic acid-water, A., 798.

and Kästner, H., electrical conductivity and equilibrium diagram for binary alloys. XVIII. System palladiumcobalt, A., 559.

and Knabe, R., electrical conductivity and equilibrium diagram for binary XXI. System palladium-

chromium, A., 1455.

Mohr, L., and Breuning, W., electrical conductivity and equilibrium diagram for binary alloys. XVII. System lithium-aluminium, A., 151.

and Schmidt, A., electrical conductivity and equilibrium diagram for binary alloys. XIX. System sodium-thal-

lium, A., 676.

and Winkler, O., magnetic susceptibility and diagram of state for binary alloys. II. System palladium-manganese, A.,

Grubenholzimprägnierung Ges.m.b.H., wood

preservatives, (P.), B., 500.

Gruber, C. M., Scholten, R., DeNote, A., and Wilson, J. F., effects of sodium cthyl-n-hexylbarbiturate (ortal sodium) and of sodium ethylisoamylbarbiturate (sodium amytal) on excised smooth

muscle, A., 634. Gruber, E. E., and Adams, Roger, synthesis of hydrogenated phenanthrenes, A., 331.

Gruber, F. E. See Western Electric Co. Gruber, H. See Ulzer, F. Grubitsch, H., rate of solution of iron in molten zinc, B., 23.

Gruehl, H. L. See Ratner, B. Grim, R., experiences with special cements, B., 235.

Grünbaumówna, R., and Marchlewski, L., gossypol, A., 1318.

Grünberg, A. A., nature of the trans-effect, A., 1184.

and Michelis, J. L., determination of iridium by titration with potassium ferrocyanide, A., 1354.

and Ptitsyn, B. V., titration of bivalent platinum and tervalent iridium at different temperatures, A., 953.

and Rjabtschikov, D. I., strength of isomeric bases of the type [Pt(NH₃),(OH)₂], A., 428. Geometrical isomerism of strong bases, A., 1203. Gründer, W., structure and structure

alteration [in relation to grinding], B., 303. Grüneisen, E., and Gielessen, J., bismuth crystals. I. Thermal and electrical conductivity in transverse magnetic fields. II. Variation of thermo-electric power in

transverse magnetic fields, A., 930, 1329. Grüner, G. See Böhm, F.

Grünewald, K., improvement in the Fischer carbonisation assay apparatus, B., 914.

Grünigen, F. von. See Truninger, E. Gruensteidl, E. See Mecheels, O. Grüter, P. R., readily-soluble complex theophylline compounds, (P.), B., 124. Conversion of alkali salts of phenyl-

alkylbarbituric acids into stable calcium compounds, (P.), B., 220. Medicinal preparations containing chlorophyll or chlorophylline, (P.), B., 716. Grum-Grshimailo, S., [refractive index of]

mixtures of piperine and iodides, A., 279.

See also Vedeneeva, N.

Grumell, E. S., and Dunningham, A. C., sampling of small coal, B., 432.

See also Dunningham, A. C.

Grumsteidl, E., and Hamika, F., determination of mercerised cotton with the fluorescence microscope, B., 17.

Grund, F.C. See Three Star Accumulators. Grunder, A., offset inks, B., 1217.

Grundmann, C. [with Bär, F., and Trischmann, H.], transformation of carboxylic acids into aldehydes, A., 1233. [with Trisohmann, H.], oxidation of phenols with peracetic acid, A., 1108.

See also Kuhn, R.

Grundmann, W. See Windaus, A.

Grundström, B., fine structure of the Cbands of calcium deuteride, A., 8. Absorption spectrum of copper hydride, A., 267. Absorption spectrum of magnesium hydride in the ultraviolet, A., 405. Band spectra of alkaline-earth hydrides, A., 775. See also Funke, G. W

Grundy, J. G., suitability of metals for

dyeing machinery, B., 15.

Grundy, R. H., mathematical and graphical solutions for exhaust and flue-gas analyses, B., 1187.

Gruner, E., and Sieg, L., ferric ammonium chlorides; anomalous mixed crystals,

A., 1477. Gruner, J. W., structural relationship of glauconite and mica, A., 49. Structure and chemical composition of greenalite, A., 1357. Hydrothermal alteration of montmorillonite to felspar at temper-

atures from 245° to 300°, A., 1483. Gruner, P., rational nomenclature for elementary corpuscles, A., 774. Nomenclature of elementary corpuscles, A., 1046.

nert, A., Hessenbruch, W., and Schichtel, K., high-temperature-resist-Grunert, ant chromium-aluminium-iron alloys, B., 105.

and Rohn, W., time-elongation curves taken with the Rohn creep limit appar-

atus, B., 1157.

Grunfeld, M., transposition of N-arylformimino-ethers, OEt CH:NR, A., 716. Grunzig, W., Baumgärtel, C., and Rompler

Akt.-Ges., J., radioactive rubber threads, (P.), B., 289.

Gruschevoi, S. E., bacterial rust on tobacco, B., 757.

Gruschka, T. See Pick, H. Gruse, W. A. See Brandes, O. L., Martin, S. M., jun., and Stevens, D. R.

Grutterink, B. W. See Harreveld, A. van. Gruzewska, Z., and Roussel, G., determination of copper in organs, A., 260. Metabolism of inorganic substances in liver of calves during feetal development. Iron, phosphorus, and calcium, A., 238. Detection and determination of copper in organic matter by benzoinoxime, A., 536. Copper content of the embryonic calf

liver, A., 878, 1533. Gruzov, N. N. See Pavlov, K. F.

Grynfeltt, J., crystalloids of the mammary gland, A., 879.

Grysez, V., and Martin, P., determination of the phenol coefficient of an antiseptic, B., 251.

See also Marmier, L. Grzycki, S. Sec Moraczewski, W. Gschaider, B. Seo Klatt, R. Gsottschneider, H. See Emmert, B.

Gstirner, F., [toilet-]bath preparations, B.,

Guaisnet-Pilaud, (Mme.) M., preparation and geometrical isomerism of asymmetric quaternary ammonium salts and betaine hydrates derived therefrom, A., 198.

Gualtierotti, T. Sce Scoz, G. Guardite Corporation. See Baer, J.M.

Guareschi, P. Sco Moruzzi, G.

Guba, E. F., slime flux [of trees], A., 393 Vaporising sulphur, naphthalene, and other solid fumigants, (P.), B., 1022.

Gubarev, E., and Moiseenko, G., adsorption of glucose by albumin, A., 933. and Rutes, M., micro-determination of

blood-sugar with hypoiodite, A., 622. Gubelmann, I. See Du Pont de Nemours

& Co., E. I.

Gubermanówna, S. See Truszkowski, R. Gubkin, S. I., flow of alloys, in connexion with Maxwell's relaxation theory, B., 745. Gucwa, W. See Moraczewski, W.

Gudden, B., and Schottky, W., problems of ionic and electronic conduction in non-metallic solids, A., 138.

Gudris, N. M. See Borovik, S. A. Gudtzov, N. T., and Bugaeva, Z. M., cementation of low-carbon chromium

steel, B., 411. and Kuzmina, O. O., changes in quenched carbon-chromium steel during tempering, B., 994.

Guédras, M., desulphurisation of steel, B.,

Guelin-Schedrina, A., glycogenic function of the liver in the chicken embryo, A., 370.

Guellich, G. E. Sce Vilella, J. R.

Guelpérine, N. I., and Naiditch, I. M., "I-S" diagrams for hydrogen, carbon monoxide, nitrogen, nitrogen + hydrogen, and carbon monoxide+hydrogen, B., 18, 192.

See Euler, H. von, and Günther, E. Steinkopf, W.

Guenther, E. S., orris-root [oil], B., 44. Oil of sweet basil, B., 762.

Günther, G. See Euler, H. von. Günther, H. See Tonn, W.

Günther, I., investigations on diffusion of cathode rays by means of the cloud chamber, A., 14.

Günther, P., and Holm, K., initiation of gas reactions by ions. II. Hydrogenchlorine mixtures, A., 1473.

Meyer, R., and Müller-Skiold, F., thermochemistry of azoimide, A., 291.

Günther-Schulze, A., and Betz, II., corona rotation effect in different gases at various pressures, A., 916. Breakdown potential of electrolytic barrier layers, A., 924.

Guercio, F., isolated amæboid cells observed in cultures in vitro of uterine tissue (mucosa and muscular fibres) of the adult rabbit treated with gonadotropic hormone and folliculin, A., 762.

and Arnone, R., action of positive chemical stimuli on cultures in vitro. I. Benzene, A., 756. Culture in vitro of the female genital apparatus with folliculin, A., 762.

Picinelli, G., and Hamburger, H. J. variations of the ascorbic acid content in the puerperal state. I., A., 766.

Guerin, H., action of heat on the ortho-, pyro-, and meta-arsenates of calcium and strontium, A., 173. Barium arsenates; characterisation of 2As₂O₅,3BaO, A., 439.

Guérin, M. See Roussy, G., and Sannié, C.

Guérin, P. Seo Sannié, C.

Guernsey, E. W., Vollrath, R. E., and Consolidated Gas Electric Light & Power Co. of Baltimore, purification of sulphur, (P.), B., 834.

Guéron, G., Guéron, J., and Prettre, M., oxidation of inorganic reagents by ozone. I. and II. Potassium iodide, A., 440, 1477. Induced oxidation of potassium

iodide by ozone, A., 441.

Guéron, J., aqueous solutions of stannic chloride. III. Autocatalytic character of the flocculation, A., 35. Determination of insulating power of Dewar vessels, A., 954.

and Lalande, A., dissociation of antimony trihydride: an autocatalytic hetero-

geneous reaction, A., 168. Sco also Guéron, G.

Guerrant, N. B., Kohler, E., Hunter, J. E., and Murphy, R. R., relationship of the vitamin-D intake of the hen to the antirachitic potency of eggs produced, A., 121.

Rasmussen, R. A., and Dutcher, R. A., value of the chemical titration method in determining the vitamin-C potency of certain food-stuffs, A., 120.

Guerrant, R. E. See Hogan, A. G. Guerrero, M. See Juliano, J. B. Guerrini, G., action of photo-catalysts on

fermentation of lactose determined by B. coli, A., 760.

Guerrini, V. H. See Nolan, J. J. Guertler, W., [iron and cobalt] alloys containing thorium, (P.), B., 415. Copper-thorium alloys, (P.), B., 416. Gold- and silver-zirconium alloys, (P.), B., 553. Constructional parts, or articles, manufactured from copperzirconium alloys, (P.), B., 553. ing-up of aluminium scrap, B., 1159.

Bergmann, P., and Geutebrueck, A., solubility of German clays in acid under

various conditions, B., 1094. Kleweta, F., Clans, Willi, and Rickertsen, E., investigation of zinc-aluminium alloys with German electrolytic zinc as a basis and with additions of copper, magnesium, nickel, lithium, and lead, B., 996.

See also Bergmann, P.

Guest, G. H., and Larmour, R. K., effect of fermentation on properties of gluten, B., 903.

Guest, W. W., rock crusher, (P.), B., 80. Guetti, L. S., [stainless chromium-nickel] alloy, (P.), B., 937.

Gueze, P., rapid determination of sugars in cane molasses, B., 469.

Guggemos, influence of manuring on the suitability of milk for cheese, B., 1115.

Guggenbuhl, G., writing paper with white copying preparation, (P.), B., 270.

Guggenheim, E. A., electric moments of solute molecules, A., 550. Magnetic and electrostatic energy; thermodynamics of magnetisation, A., 1187. Specific thermodynamic properties of aqueous solutions of uni-univalent electrolytes, A., 1204. Meaning of diffusion potential, A., 1467.

Sce also Bell, R. P. Guggenheim, M. See under Guggenheim

Guggenheim, S. See under Guggenheim Bros.

Guggenheim, S. R. See under Guggenheim

Guggenheim Brothers, and Bevan, J. G., treating sewage, (P.), B., 718.

Guha, A. C. See Dhar, J., and Pal, H. K. Guha, B. C., isoelectric point of vitamin- B_1 , A., 765.

and Pal, J. C., combined ascorbic acid

in food-stuffs, A., 1033.
See also Biswas, H. G., Das, N. B., Ghosh, A. R., and Sen, K.

Gnha, P. C., 1:4-bridging of diethyl succinosuccinate, A., 1252.

and Ganapathi, K., synthesis of "ketono-pinone," A., 206. Pinane group. I. Synthesis of pinononic acid and ketonopinono [4:6-diketonopinanol, A., 855.

and Ranganathan, S. K., syntheses in the camphane group. I. Attempted synthesis of apocamphorquinone. II. Synthesis of ketohomonorcamphor [dicyclo-[1:2:3]-octane-2:4-dione], A., 855, 856.

and Seshadriengar, N. K., syntheses in the thujane group. I. Synthesis of ketopolymethylene - 1.3 - dicarboxylic esters. II. Synthesis of northujone-2:6-dicarboxylic esters, A., 848, 850.

Guha, S. K., indigoid dyes, A., 209. Dyes derived from acenaphthenequinone. 5 - Methyl - 1:8'- thionaphthenacenaphth onylindigos, A., 861.

Guidi, G., action of natural mineral waters on the isolated heart, A., 373.

Guignard, E. M. F. L., apparatus for distillation and fractionation of tar, B., 226. Apparatus for distilling or concentrating

liquids, (P.), B., 81.
Guignon, G. See Raffy, A.
Guilbert, F., heart malady of beets, B., 211.
Guilbert, H. R., carotene content of lucerne hay and meal, B., 42.

and Hart, G. H., minimum vitamin-A requirements with particular reference to cattle, A., 528.

Guilbert, J. See Pénau, H.

Guild, F. N., piedmontite in Arizona, A., 185.

Guillain, G., Rouquès, L., and Ribadeau-Dumas, C., cerebrospinal fluid in periodic paralysis, A., 232.

Guillaume, A., and Lefranc, C., variations in caffoine and in the useful principles of commercial coffee extracts, B., 297.

and Tanret, G., hydrolysis of glucosides and of certain organic compounds by ultra-violet rays, A., 171.

Guillaumie, M., variations of the proteclytic activity of kinase-activated pancreatic juice as a function of the quantity of kinase, A., 895.

See also Gayet, R. Guillaumin, C. O. See Decourt, J.

Guillemet, R., catalytic fermentation of fructoholosides, Balance of alcoholic fermentation by yeasts, A., 522. Rate of fermentation of sugars by different kinds of yeast, A., 522. Balance sheet of sugar fermentation by yeasts, A., 1026. Action of small quantities of copper on alcoholic fermentation by yeast; application to wine-making, A., 1421. Fermentable sugars of flour and dough, B., 1065. Ravages of the parasites of wheat, B., 1229.

and Schell, C., action of some oxidisers on amylolysis and alcoholic fermentation in flour paste, A., 519. Polysaccharides fermented by yeast in wheaton flour, A., 1421.

Guillemonat, A., oxidation of γ - and β -methyl- $\Delta\beta$ -penteno by solonium dioxide, A., 51.

Guillet, L., and Ballay, M., flakes in forged stoel, B., 322.

See also Galibourg, J.

Guillet, L., jun., modulus of elasticity of copper-beryllium alloys, A., 23.

See also Portevin, A.

Guillien, R., the A band of liquid oxygen, A., 774. Intensity and form of the absorption bands of liquid oxygen, A.,

Guilliermond, A., and Choncroun, N., electrophoresis of plant cell-contents, A.,

Guillot, M., and Geneslay, G., chemical formula of malachite, A., 450.

See also Rosenblum, S. Guillot, P., paper-testing methods, B., 1086.

Guimarais, J. A. See Feldberg, W.Gninau, O. A. See De Haas, W. J. Guinness, Son & Co., Ltd., A. See Millar,

Guinot, H., azeotropie dehydration of

alcohol, B., 470. Guinot, H. M. See Usines de Melle.

Guintze-Verner, L. Λ . See Viktorov, L. K. Guitton, L., [iron, even when impure, is not oxidised in air saturated with moisture], A., 174.

Guittonneau, G., and Chevalier, R., utilisation of salicylic acid as an energyproducing food by Azotobacter in soil, A., 1422.

and Simonnet, H., biological value of two Torulæ from the cheese factory, A., 381.

Gulati, K. C., and Ray, J. N., oximation, A., 1386.

Seth, S. R., and Venkataraman, K.,

phloracetophenone, A., 475. and Venkataraman, K., synthetical experiments in the chromone group. XVIII. Demethylation with alumin-

ium chloride, A., 479.
Gulbransen, E. A. See Long, E. A.
Gulbransen, R. Seo Browning, C. H.
Gulette, W. S., and Sinclair Refining Co.,

eracking of hydrocarbons, (P.), B., 9. Gulf Refining Co. See Ayres, E., Buerger, C. B., Martin, S. M., jun., Payne, C. R.,

and Stevens, D. R.Gulf Research & Development Corporation. See Ambrose, H. A., Kennedy, H. T., and Lawton, H. C.

Gulf States Paper Corporation. See Hodges,

Guli, M. F., effect of acid and basic fodder on oxidative processes in muscles during work and training, A., 1548.

Gulinova, L. See Budnikov, P. P. Guljaeva, A. I. See Lebedev, S. V.

Guljaeva, L. A., lithology of the clay facies of the carboniferous in the Samara Ubend of the Volga river, A., 309.

Guljanskaja, G. A. See Kaschtanov, L. I. Gull, H. C., and Martin, A. E., mapping ultra-violet absorption spectra, using a special hydrogen lamp and a microphotometer, A., 181.

Guiland, J. M., and Holiday, E. R., constitution of the purine nucleosides. IV. Adenosine and related nucleotides and co-enzymes, A., 1000.

and Randall, S. S., oxytocic hormone of posterior lobe of pituitary gland, A., 901.

Gullans, O. See Baylis, J. R.

Gullich, K. See Bisonit Ges.m.b.H. Gullickson, T. W. See Eckles, C. H.

Guluii, M. F., and Listovnitscha, U. I., digestibility of ensiled Jerusalem artichoke stalks, B., 251. Sce also Listovnitscha, U. I.

Guminskaja, M. A., utilisation of intermediate products of extraction of vanadium from ores, concentrates, and slags for the preparation of vanadium catalysts. III. Utilisation of Ural extracts for preparation of vanadium catalysts on a chromo-zeolite base, B., 316.

Sco also Boreskov, G. K.

Gumiński, K., glow of the barrier anodes of aluminium, A., 923.

Gummert, J. S., Hutchinson, J. E., and Pennsylvania Salt Manufg. Co., protection of molten [galvanising] baths, (P.), B., 239.

Gump, W. See Carswell, T. S. Gump, W. S. See Petroff, S. A.

Gumz, W., mean specific heats of gases, for use in fuel technical calculations, A., 1058. Causes of corrosion in air prehoaters, B., 841.

Gundermann, E., sugar industry, B., 517. Gunderson, T., subconjunctival iron deposits after adrenaline injections, A., 1301.

Gunn, C. See Summerfield, W. L. Gunn, J. A. See Elphick, G. K.

Gunn, R., azimuthal effect of cosmic rays, A., 133.

Gunn, T. A., relations between chemical constitution, pharmacological action, and therapeutic uses of the harmine

group of alkaloids, A., 1294. Gunness, R. C. Sce Gilliland, E. R. Gupta, G. N. See Sen, H. D.

Gupta, J., interpretation of the Raman spectra of formic acid and metallic formates, A., 663. Raman spectra of oxalates in solution and the structure of the oxalate ion, A., 922. Polarisation of Raman lines of formic acid, and formate and trichloroacetate ions, A., 1180.

See also Sirkar, S. C. Gupta, J. C. See Chopra, R. N. Gupta, R. D. See Krall, K.

Gupta, S. C. S., 2:3-cyclopentenonaphthalene, A., 1498.

Gurd, G. W., Gishler, P. E., and Maass, O., system calcium oxide-sulphur dioxidewater. I. Determination of vapour pressures and conductivities, A., 160.

Gurevitsch, A. See Deschalit, G. Gurevitsch, I. See Zinoviev, A. Gurevitsch, J. B. See Belaev, P. P.

Gurevitsch, V. G., absorber for titrimetric determination of traces of admixtures to gases, A., 46.

and Raschkovan, B. A., separate determination of arsine and phosphine in air, A., 442.

and Vendt, V. P., determination of small concentrations of sulphur dioxide and hydrogen sulphide in air. II., A., 1478,

Gurlt, H. See Koenigs, E. Gurvich. See under Gurvitsch.

Gurvitsch, B. L. See Nersesov, L. D.

Gurvitsch, J. See Grinev, D.
Gurvitsch, N. L., diversity of composition of essential oils in certain species of the Trans-Caucasian thyme, B., 1128.

Gurvitsch, V. L., evaporation temperature—the factor determining the process of distillation, B., 1183.

Gurwick, I., and Shellmar Products Co., process of etching particularly for intaglio cylinders, (P.), B., 844.

Gusdorf, H. M., tanning of hides, (P.), B., 113.

Gusev, K. F., water sorption of electroinsulating fibre board, B., 405.

Gusev, V.I. See Ivanov, K.N.

Gusinskaja, S. L., Zakutskaja, M. A., and Poletaev, N. V., Schor-Su petroleum and its water content, B., 915.

Guskov, V. M., decomposition potentials of

fused salts, A., 1072.
Gussjev, K. F. See Volarovitsch, M. P.
Gussmann, W. See Lohaus, H.

Gustafson, C. E. See Fischer, H. G. M., and Standard Oil Development Co.

Gustafson, J. G., and U.S. Gypsum Co., gypsum plaster, (P.), B., 277.

Gustafsson, C., preparation of some β diketopiperidines, A., 1388.
Gustafsson, E. G. T., alloys containing

metal of the iron group, (P.), B., 937.

Gustafsson, F. Sec Mattson, S. Gustafsson, G., magnetic atomic moments of manganese dissolved in copper, silver, and gold, A., 555. Gustavson, R. G. See D'Amour, F. E.,

and Hays, E. E.

Gustus, E. L., Meyer, R. K., and Woods, O. R., preparation of gonadotropic hormone of pregnant mare 's blood, A., 901. Gutácsy, Z. von, pathology of infantile marasmus, A., 231.

Gutehoffnungshütte Oberhausen Akt.-Ges., centrifuges, (P.), B., 3. Fused material from substances comprising domestic and industrial refuse, (P.), B., 126. Destruction of dust, (P.), B., 579. Manufacture of formaldehyde and other oxidation products from paraffins having more than one carbon atom in the molecule, (P.), B., 873.

Gutekunst, G. O., Rogers, C. E., and Rogers, R. H., soluble cocoa, (P.), B., 953.

Guth, E., viscosity of suspensions and solutions. I. Viscosity of suspensions, A., 426. V. Influence of Brownian movement on the viscosity of ellipsoid suspensions, A., 426, 679.

and Simha, R., viscosity of suspensions and solutions. III. Viscosity of sphere suspensions, A., 562.

Guth, \bar{R} ., mixing device [dissolver], (P.), B., 431.

Guthke, J. A. See Ostern, P. Guthmann, H. See Baukloh, W. Guthmann, K., influence of weather conditions on blast-furnace operation, B., 456. Measurements of temperature with

a new colour pyrometer, B., 575.

Guthmann, W. S., and Terre, W. L., sampling and analysis of eggs, B., 1175. Guthrie, J. D. See Miller, L. P.

Gutiria, V. S., increments of paracher of polymethylenic rings, A., 1053. Multiple linkings in molecules of carbon compounds, and the structural constants of molecular refraction, A., 1053.

and Dalin, M. A., preparation of ethyl alcohol from ethylene obtained from petroleum gases. VI. and VII., B., 484, 918,

See also Dalin, M. A., and Potolovski, L.Gutkina, E. L., and Tzigelman, A. I., examination of lime liquors by de-termining their oxidation-reduction potential and their unhairing properties, B., 947.

See also Sokolov, S. I.

Gutlohn, L., refining of lead, (P.), B., 602. Gutman, A. B., Tyson, T. L., and Gutman, E. B., serum-calcium, -inorganic phosphorus, and -phosphatase activity in hyperparathyroidism, Paget's disease, multiple myeloma, and neoplastic disease of the bones, A., 505.

See also Williams, Russell D.

Gutman, E. B. See Gutman, A. B. Gutman, M. I., and Majantz, A. D., freeing nickel sulphate solutions from iron and aluminium impurities, B., 232. Precipitation of nickel hydroxide in the hydrometallurgical treatment of Chali-

lovsk nickel ore, B., 232.

Gutman, S. M., and Piradjan, T. V.,
electrometric determination of vanadium in high-chromium steels, B., 65. Electrometric determination of vanadium in slags, B., 65.

and Proschutinski, S. I., rapid colorimetric determination of silicon in steel, for steel-plant laboratories, B., 994.

Gutmanaite, H. See Janickis, J. Gutmann, M. Seo Rappaport, F. Gutner, R. A. See Dobrjanski, A. F. Gutorko, A. V. See Voroschcov, N. N. Gutschmidt, H., and Clusius, K., critical

explosion limits in oxidation of carbonyl sulphide and monosilane, A., 163. See also Clusius, K.

Guttenberg, H. von, and Buhr, H., assimilation and respiration of Mediterranean macchia plants in rainy and dry seasons, A., 393.

Gutteridge, H. S., effect of feeding deaminised versus untreated cod-liver oils on growth, egg production, and mortality in poultry, B., 43.

Guttmann, A., tensile strength of plain concrete, B., 148.
Guttmann, R. See Ehrlich, F.
Gutuiria. See under Gutiria.
Gutzeit, C. L. See Parker, I.

Guy, J. A., determination of traces of iron, A., 1222.

Guy, T. W., control chart for interpretation of coal-sampling data, B., 529.

Guyader, G. See Paget, M. Guye, C. E., borders of physics and biology, A., 1149.

Guyénot, E., Held, E., and Moszkowska, A., habituation to the anterior pituitary hormone; production of antihormone in serum of resistant animals, A., 900.

Held, E., Moszkowska, A., and De Stoutz, H., urine of ovariectomiscd women contains only the auxogenic factor, A., 1302.

Guyer, A., and Escher Wyss Maschinenfabriken A.-G., refrigerant for processes in which it has to be compressed, (P.), B., 623.

Tobler, B., and Farmer, II., principles of gas exsorption. III., A., 281.

Guyler, A. F. See Brit. Celanese. Guymon, J. F. See Fulmer, E. I.

Guyon, G., chemical factors and quality of crops, B., 35. See also Jolibois, P.

Guzelj, L., gravimetric determination of lead as lead chromate, A., 443.

Guzev, V. K. See Budnikov, P. P. Guzmán, J., electrometric analysis, A., 949. Macro-micro-burette, A., 955. Gravi-metrio methods in use during the sixteenth century, A., 955. Biburette, A., 955.

Guzmán, J., graduated electrical resistances, A., 1224. Macro-micro-burette and precision micro-pipette, A., 1225.

and Ara, A., potentiometry of auto-inversion, A., 955. Simplifications in step and inversion potentiometers, A., $12\bar{2}4.$

and D'Anglada, J. S., electroanalysis and macro-electroanalysis of zinc with three electrodes, A., 1220.

and Garcia, G., electroanalysis and macro-electroanalysis of nickel with three electrodes, A., 1222.

and Quintero, L., electroanalysis and indirect macro-electroanalysis of anions using three electrodes, A., 1219.

and Racaño, A., electrometric analysis; depolarimetry and galvanimetry, A., 1222.

and Sarabia, A., electroanalysis and macro-electroanalysis of copper with three electrodes, A., 1221.

Gvozdover, S., positive ionic current on the glow cathode in a gas discharge, A., 538.

Gwathmey, E. Seo Halpern, O.
Gwinn, C. D., Stephan, F. C., and Telegraph Condenser Co., electrolytic condensers, (P.), B., 556.

Gwosdz, J., production of hydrogen-rich gases for synthetic purposes by the water-gas process, B., 1187.

Gwyer, A. G. C., and Pullen, N. D., oxidation films on aluminium and its alloys; their production and properties, B., 600.

and Varley, P. C., deep-drawing test for aluminium, B., 237.

Gyngell, E. S., relative value of fuels for small domestic hot-water boilers, B., 4.

György, P. See Birch, T. W.

Györki, J., rocks containing alkalis from the technical viewpoint, B., 200. Town gas from brown coal, lignite, or other recent coals, B., 724.

Gyoku, H., effect of morphine and of heroin on blood-sugar and respiration in rabbits, A., 376.

Gypsum, Lime & Alabastine, Canada, Ltd., [bevelled] wallboard, (P.), B., 150. Wall construction and wallboards [with curved edges], (P.), B., 195.

Gyro Process Co., heating of hydrocarbon oils, (P.), B., 583.

See also Chave, C. T., and Throckmorton, J. W.

Gysin, M., classification of the granites of the southern Katanga according to the planimetric study of thin sections, A., 449. Origin of a crystalline schist from southern Katanga, A., 958.

Gyulai, Z., crystal growth of the alkali halides, A., 16.

and Tomka, P., quantum equivalence of photo-electric conductivity in rocksalt crystals, A., 138. See also Boros, J.

Haack, B. See Hanack, B. Haag, A. See Freudenberg, K.

Haag, H. B. See Ambrose, A. M. Haag, I. L. See Du Pont de Nemours & Co., E. I.

Haag, J., melting ferromanganese in taroil furnaces, B., 322. Haagen-Smit, A. J. See Kögl, F.

Haakh, H. See Howards & Sons, Ltd.

Haantjes, J. See Keesom, W. H.

Haardt & Co., Akt.-Ges., removal of lowboiling aldehydes from commercial dioxan, (P.), B., 442.

Haarer, E. See Fischer, Hans.

Haarich, S., welding of aluminium, B., 600.

Haarmann, W., conversion of fat into sugar, A., 235. Influence of thyroxine on oxygen consumption of surviving tissue, A., 386.

and Bartscher, K., influence of the chlorides of alkalis and of alkaline earths on saccharification of starch by diastatic enzymes, A., 519.

and Brink, H., aërobic and anaërobic production of lactic acid and degradation of carbohydrate in tissues, A., 236. Aërobic and anaërobic disappearance of lactic acid in tissues, A., 236.

and Folsche, O., action of neutral salts of the Hofmeister series on diastatic enzymes, A., 519.

Haas, A., relation between the fundamental constants of physics, A., 660.

Haas, A. J., jun. See Sherrill, M. S. Haas, A. R. C., phosphorus content of citrus and factors affecting it, B., 612. Phosphorus deficiency in citrus, B., 1171. Phosphorus nutrition of citrus and the beneficial effect of aluminium, B.,

Haas, E., absorption spectrum of water in the ultra-violet, A., 135. Microhydrogenation by hyposulphite, A.,

See also Negelein, E.

Haas, E. G. [with Stegeman, G.], heat capacity of lead sulphate, A.,

Haas, F., drying of descending material, (P.), B., 479.

Haas, H. T. A. See Gros, O.

Haas, J., determination of ammonianitrogen in presence of urea in fertilisers, B., 210.

Haas, L. W. See Read, J. W.

Haas, P., Hill, T. G., and Russell-Wells, B., sulphur-containing pigments of plant origin, A., 912.

Haas, P. C., composite bearing, (P.), B.,

Haase, A., specificity of adenylpyrophosphatase of liver extract, A., 638.

Haase, C., and Pavlek, F., copper-tin alloys, A., 1061.

and Plass, O., electric welding of light metals, with special reference point- and seam-welding, B., 600.

Haase, L. W., corrosion of copper, B., 105. Necessity of electrical pH measurements in water and sewage work, B., 350. Influence of dairy effluents on treatment of sewage of small towns, B., 910. Concrete and durasbestos [water-pipes] in chemical respect, B., 1134.

Haase, R. See Brockmann, H. Haase, T., Klages, G., and Klumb, H., loss of heat from hot bodies in gases at different pressures and its application to determination of gas pressures, B., 911.

See also Klumb, H.

Haase, W., influence of various metallic compounds on growth of bacteria, A.,

Haavardsholm, H., influence of puzzuolanic admixtures on strength and permeability of concrete, B., 194.

Haber, E. S., Nelson, P. M., and Swanson, P. P., possible association of vitamin-A with nutritional conditions in plants, A., 122.

See also Nelson, P. M., and Swanson, P. P.

Haber, P. See Levaditi, C.

Haberland, G., attempted synthesis of natural sterols. I. Possibility of ring closure of hydrogenated naphthylbutyric acids and a ready method of preparing 1keto - 7 - methoxy-1:2:3:4-tetrahydrophenanthrene, A., 990.
Haberland, H. See Fischer, Hans.
Haberlandt, H., luminescence investigations

with fluorites and other minerals, A., 1089.

Hac, L. R. See Smith, L. I.

Hachihama, Y., and Fujita, H., application of sucrose and starch. I. Oxidation with nitric acid, B., 388.

Onishi, M., and Takemura, W., bagasse. VIII. Action of dilute nitric acid on bagasse. IX. Preparation of bagasse pulp by the nitric acid process, B., 230,

Hachtel, F. See Dozois, K. P. Hackel, J., properties of the two modifications of glyceryl trinitrate, A., 1091.

Hackel, W., determination of dielectric constants and dipole loss at high frequencies. IV. Determinations different kinds of glass, A., 549.

Hacker, S. G., spectrum of Arcturus, A.,

Hackerman, N. Seo Patrick, W. A. Hackford, J. E., cracking coal-tar oils and distillates, (P.), B., 180.

See also Roberts, A. A.

Hackl, O., washing tube for gas analyses, A., 697. Solution of the manganese problem in analysis of silicate rocks, A., 813, 952. Sampling of natural gas for geochemical study of its relationship to petroleum, B., 581.

Hackspill, L., and Schumacher, W., rubidium and cesium fulminates, A., 438.

Hacquart, A. See Piraux, E.

Hadácsy, I. See Zemplén, G. Haddad, M. See Heller, V. G.

Haddock, N. H. See Imperial Chem. Industries.

Haddow, A., effect of polycyclic hydrocarbons on growth of the Jensen rat sarcoma, A., 100.

Hadfield, (Sir) R., special steels, B., 322. and Main, S. A., corrosion of iron and steel, B., 743.

Hadfield, W. J., standard specifications for

asphalt, B., 434. Hadler, B.C. See Dow Chem. Co. Hadley, D.J. See Dunlop Rubber Co.

Hadsel, A. D., ore-reducing machine, (P.), B., 352.

Haebler, T. See Krämer, O. Haecker, R. See Rupe, H.

Haegens, G., aniline [dye] printing, B., 831.

Haegermann, G., properties of cement in relation to its preparation, B., 596. Hägg, G., structure of intermetallic phases,

A., 24. Solid solutions with a varying number of atoms in the unit cell, A.,

and Hybinette, A. G., X-ray studies on the systems tin-antimony and tinarsenic, A., 23.

Hägglund, E., chemical composition of spruce wood and reactions between the wood constituents and the cooking acid in the sulphite process, B., 365.

Hägglund, E., reaction mechanism of the sulphite-cooking process, B., 365. Sulphite-pulp digestion, B., 979. Bäckström, C. H., Karanović, M., Runquist, L., and Vincent, O., sulphite

pulp with liquor contaminated with selenium, B., 185. and Bratt, L. C., determination of man-

nan in chemical pulp and wood, B.,

Hähn, F., de-acidification of water, (P.), B., 670. Preventing harmful deposition of carbonates contained in water, (P.), B., 1024.

Haehn, H., nature of autolysis, A., 1296. See also Fink, H.

Hähnel, S., volumetrie determination of carbonyl compounds. II. Determination of acetaldehyde by the hydrogen sulphite method, A., 191. Colorimetric determination of acetaldehyde. III., A., 707.

Haemers, H. See Bosch, F.

Hämmerle, W., and Weber, W., determination of nicotine, A., 1529.

See also Mohler, H. Haenlein, E., and Schliephake, E., effect of spleen extract on time of coagulation, thrombocytes, and erythrocytes of blood, A., 498.

Haenny, C., secondary radiation emitted under the action of neutrons, A., 1173.

Hänsel, G. [with Dorsch, K.], electrolytic refining of silver containing palladium, B., 1211.

Hänsel, J. P., dotergents, (P.), B., 99. Haensel, R. See Ehrlich, F.Hänsler, J. See Bergmann, G.Härle, \hat{R} . See Knoop, F.

Haeseler, G. See Ohle, H.

Häusler, H., automatic metabolism apparatus with continuous recording of oxygen consumption for small animals, A., 1016.

Häussler, A., preservation of baker's yeast by lactic acid, B., 565.

Haeussler, H., carbon dioxide diffusion through human skin, A., 1542.

Hafster, C. See Verzar, F.
Hafstad, L. R., preparation of polonium sources from radon bulbs, A., 440.

Heydenburg, N. P., and Tuve, M. A., excitation curves for fluorine and lithium, A., 1313.

and Tuve, M. A., artificial radioactivity using carbon targets, A., 131. Induced radioactivity which follows bombardment of targets by deuterium

ions, A., 132.

Tuve, M. A., and Brown, C. F., γ-ray emission of various targets under bombardment by deuterium ions, A., 5.

See also Tuve, M.A.

Hagar, D., effect of tremolitic talc in whiteware bodies, B., 454.

Hagedorn, A. See Lettré, H., and Tschesche, R.

Hagedorn, H. C., Halstrøm, F., and Jensen, B. N., rapid methods of bloodsugar determination with potassium ferricyanide, A., 875.

Jensen, B. N., Krarup, N. B., and Wodstrup, I., protamine insulinate, A., 1426.

Hagedorn, M., and Agfa Ansco Corp., foils and threads [from polyvinyl chloride] (P.), B., 1167.

Hagem, O., effect of lime on pastures, B.,

Hagemann, A., testing and evaluation of lubricants for power vehicles, B., 967. and Hammerich, T., modern tests on fuels for high-speed Diesel engines, B., 775. Modern testing of motor fuels for high-speed type of automotive Diesel engine, B., 867.

Hagen, H. See Sieverts, A. Hagen, S. K., detection of small amounts of platinum in minerals, alloys, precipitates, etc.; separation and concentration of platinum by precipitation with tellurium, A., 1223.

Hagena, A. See Ehrhardt, K.

Hagenbach, A., and Gärtner, Hans, spectroscopic determination of [atomic] mass of deuterium from the Balmer series, A., 1309. Hagenbach, H. See Rupe, H.

Hagenguth, K., structure of yeast nucleic acid, A., 743.

Hagens, J. See Barrett Co. Hager, A. See Yeager, J. F

Hager, J. J. Sco Campbell, A. W.

Hager, O. B., jun. See Willard, H. H. Hagerman, B. W. See Lewis, S. R.

Haggard, H. W., and Greenberg, L. A., breath odours from alliaceous substance; cause and remedy, A., 1134.

Hagisawa, H., preparation of sulphur and magnesium sulphate from sulphur dioxide and magnesia. II., A., 39. See also Ishikawa, Fusao.

Hagiya, M. See Obinata, I.

Haglund, G., and Patentaktiebolaget Gröndal-Ramen, removal of resin from sulphite cellulose, (P.), B., 539. Alkali sulphite solutions, (P.), B., 592. Treatment of waste liquors from cellulose digestion to regenerate their alkali metal compound content, (P.), B., 636. Sulphite cellulose, (P.), B., 1088.

Haglund, T. R., welding of cast iron, (P.),

B., 746.

and Harlitz, S. J. A. I., welding of cast iron and welding rod therefor, (P.),

Hagood, J., and Amer. Agricultural Chem. Co., calcium arsenate insecticides, (P.), B., 165.

Hagopian, C. H., composition for manufacture of artificial stone, (P.), B., 740.

Hahn, A., and Niemer, H., inhibition of formation of lactic acid in the cell by oxygen. I., A., 1017. Hahn, C. See Koppers Co. of Delaware.

Hahn, D. A., and Seikel, M. K., isomerisation of saturated and unsaturated hydantoins, A., 735.

Hahn, F. See Bohn, H.
Hahn, F. L., unknown property of the calomel half-cell and determination of bromide-chloride mixtures, A., 292. Qualitative reaction for bromates, A., 1219. Absorption of gases and vapours; determination of traces of volatile bromides, A., 1219.

Hahn, G., and Schales, O., [synthesis of benzyltetrahydroisoquinoline bases under "physiological" conditions], A., 618.

Hahn, O., chemical elements and natural atomic types from the viewpoint of investigation of isotopes, A., 401.

Meitner, L., and Strassmann, F., new transformation processes in bombardment of uranium with neutrons; elements beyond uranium, A., 773. See also Meitner, L.

Hahn, P. F., and Fairman, E., copper content of human and animal tissues, A., 498.

Hahn, T. M., diffraction patterns, (P.), Hahn, U., have sucklings a specialised

vitamin-C metabolism ? A., 1304.

Hahn, V. See Prelog, V. Hahn, W. See Schmidt, Erich.

Haigh, A. S. See Rowe, F. M. Haigh, B. P. See Macnaughtan, D. J.

Haigh, J. C., and Joachim, A. W. R., paddy cultivation. V. (A) Effect of time of application of fertiliser. (B) Effect of form of phosphoric acid applied, B., 1115. Hailes, H. R. See Imperial Chem. Indus-

tries. Hailwood, E. A., rotary drum furnaces, (P.), B., 721.

Hain, A. M., physiology of pregnancy in rats; mechanism of parturition; effect on femalo rats of antenatal administration of cestrin to the mother, A.,

and Robson, J. M., comparative assay of cestrone in the rat and mouse, A., 1427.

Haines, C. L., characteristics of Geiger-Müller counters filled with different gases, A., 1325.

Haines, L. B. See Western Electric Co.

Haines, R. B. See Lea, D. R. Haines, R. T. M., and Drummond, J. C., characteristics of halibut-liver oils, B.,

See also Ward, J. F.

Haissinsky, M., purification and preparation of very intense polonium sources, A., 440. Solubility of slightly soluble electrolytes, A., 1062. Electrochemistry of polonium, B., 842.

See also Emmanuel-Zavizziano, (Mme.) II. Hake, D. S. See Kinzie, C. J.

Haken, K. von. See Goerig & Co., Akt.-Ges.

Halasyam, R. M., constitution of formic acid and formates, A., 412. Constitution of formic acid and formates. III.,

Halbach, H. See Fischer, Hans.

Halban, H. von, and Eisner, H., kinetics of rapid reactions. II. Starch iodide, A., 1346.

Kortüm, G., and Szigeti, B., technique of photographic spectrophotometry of solutions, A., 1223.

Halban, H. H. von, jun., measurement of v.p. of mercury from absorption of resonance radiation, A., 21. Vapour pressure abnormalities of capillaryactive amalgams, A., 557.

and Preiswerk, P., slowing down of neutrons by collisions with protons, A., 131. Existence of resonance levels for capture of neutrons, A., 402. Cross-section measurements with slow neutrons of different velocities, A., 772. Experimental proof of the diffraction of neutrons, A., 1044.

See also Preiswerk, P.

Halbedel, G., dielectric constants of amphoteric electrolytes, A., 1066.

Halbrook, E. R. See Almquist, H. J.

Halcon, L. Seo Pascual, J. Hald, J. See Larsen, V.

Haldane, J. B. S., carbon dioxide content of atmospheric air, A., 698.

Halden, W., colour reaction for detection and determination of vitamin-D, A., 906.

and Tzoni, (Mrs.) H., colour reaction for detection and determination vitamin-D, A., 906.

Halden & Co., Ltd., J., and Holden, J., photo-printing papers and processes, (P.), B., 477. Diazo-type printing processes, (P.), B., 668, 1020. Light-sensitive diazo-type layers, (P.), B.,

Haldi, J., and Bachmann, G., creatinuria induced by ingestion of glucose and fructose and by exercise, A., 1411.

Hale, A. H., and Tuemmler, F. D., automatic still cut-off, A., 46. See also Baxter, G. P.

Hale, C. H., jun., and Muchlberg, W. F., [determination of] sulphur in plain and alloy steels; combustion method, B., 1098. Hale, F., relation of vitamin- Λ to eye development in the pig, A., 1428.

Hale, G. A., comparison of winter legume green mannro and sodium nitrato for

fertilising cotton, B., 1060.

Hale, G. C., explosivo, (P.), B., 573, 814. Hale, J. B. Seo Angus, W. R., and Bailey, C. R.

Hale, M. D., and Mack, P. B., effect of dry-cleaning and of water-washing on strength of unweighted and of tin-weighted silks. V. (2). Effect of various dry-cleaning solvents, B., 540, 828.

Hale, W. S. See Balls, A. K. Halenz, H. F. See Wakeham, G.

Hales, A. L., thermal stability of the lower atmosphere, A., 21.

Haley, \overline{D} . E. See Frear, D. E. H., Jensen, O. O., and Longenecker, H. E.

Haley, J. B., Söllner, K., and Terrey, H., X-ray studies of congulation process of colloidal gold. I. II. X-Ray experimental technique, A., 1200. See also Aiken, J. K.

Halferdahl, A. C. See Pitt, N. P.

Halfmann, K., plated sheet metal and its working, B., 104.
Halford, J. O., and Anderson, Leigh C., organic deuterium compounds; acetic, malonic, and succinic acids, A., 822. Sco also Bates, J. R.

Halford, R. S. Sco Olson, A. R.

Hall, A. J., degumming of real silk materials, B., 13. [Detection and estimation of] damage in wool goods, B., 98. Dyeing and finishing of rayons, B., 590. Stains on cotton, B., 787. Moisture in textile processing [dyeing and finishing], B., 881. Plasticity of textile fibres, B., 924. Betaino for improving vat-dye printing pastes, B., 928. Use of titanium compounds in rayon treatment, B., 929. Stretching of acetato rayon for improving its properties, B., 1199. Chemistry of newer textile assistants, B., 1203.

Hall, B. V., and Lewis, R. M., induction of an acid vaginal secretion in the immature macaque by injections of œstrin, A., 901.

Hall, E. L., and United Gas Improvement Co., manufacture of carburetted watergas using heavy oil, (P.), B., 437.

See also Perry, J. A. Hall, F. C., Wiggins, W. R., and Nash, A. W., lubricating oils from coal products, B., 227.

See also Wiggins, W. R.

Hall, F. G., effect of altitude on affinity of hæmoglobin for oxygen, A., 1399. See also Keys, A.

Hall, F. P. See Schramm, E.

Hall, F. R., and Homogene Permanent Packing, Ltd., engine, hydraulic, and other packings, (P.), B., 579.

Hall, F. W. See Texas Co.

Hall, G. E., and Hodsman, H. J., apparatus for determining fusibility of coal ash, B., 724.

Hall, H., disintegration of the deuteron by

γ-rays, A., 541. and Rarita, IV., photo-electric effect for the L-shell, A., 263.

Hall, H. C., fluxes for aluminium and its alloys, (P.), B., 155. Prevention of wear during running-in of ferrous-metal parts of engines and machinery, (P.), B., 504. Heat treatment of aluminium alloys, (P.), B., 554.

Hall, H.J., and Bachman, G.B., acetylenes. I. Cracked gasoline as source of a-olefines for preparation of acetylenes, B.,

Hall, H. W. See Cole, Gordon M.

Hall, J. A., and Gisvold, O., chemistry of slash-pine (Pinus caribaa, Morelet). II. Fats, waxes, and resins of the growing tips, A., 651. See also Dixon, L. F.

Hall, J. F., jun., and McClure, G. S., insensible water loss in relation to water ingestion in man, A., 1413.

Hall, J. H., and Taylor-Wharton Iron & Steel Co., welding rod, (P.), B., 1161. Hall, J. P. See McCoy, C. H.

Hall, L. A., acid cure for meat, B., 568. and Griffith, C. L., vitamin concentrate, (P.), B., 1177.

See also Griffith, C. L.

Hall, L. G., rectifying effect in chrome cast iron, A., 408. Low-temperature diffusion of solid aluminium into iron, A., 1062.

Hall, N. F., and Jones, T. O., redetermination of the protium-deuterium ratio in

water, A., $14\hat{8}2$. Hall, N. F. B., and Earl, J. C., chemistry of Australian-grown tobacco, B., 219.

Hall, R. E., and Hall Labs., Inc., treatment of steam boiler-water, (P.), B., 128. Laundry starch and method of using it, (P.), B., 564.

See also Hall Labs., Inc.

Hall, W. H., and Johnston, H. L., influence of combustion conditions on density of water formed from commercial hydrogen and oxygen, A., 1474. Hall, W. K. Sec Bell, J.

Hall Laboratories, Inc., and Bell, E. B., dyeing or printing of textile materials, (P.), B., 882.

and Hall, R. E., tanning, (P.), B., 609. Treatment of milk and milk preparations, (P.), B., 619.

See also Hall, R. E., and Smith, G. W. Halla, F., double salt, K₂Mg(CO₂)₂,4H₂O, A., 438. Congruent solubility of dolomite, A., 560.

[with Ritter, F.], determination of change of free energy in reactions of type A(s)+B(s)=AB(s) and application to dolomite problem, A., 290.

Hallam, C. D., and Cox, R. S., etching of half-tones for uncoated papers, B., 220. Hallay, L., chemistry of virulence, A., 524. Halle, F., and Hofmann, Wilhelm, thread diagram for polyvinyl alcohol, A., 17.

Halle, H. See Brill, R. Haller, H. L., and LaForge, F. B., constituents of pyrethrum flowers. IV. Semicarbazones of pyrethrins I and II and of pyrethrolone, A., 1514. See also LaForge, F. B.

Haller, J., and Durand & Huguenin Akt.-Ges., azo-dyes, (P.), B., 585.

Haller, M. H., Smith, E., and Ryall, A. L., spray-residue removal from apples and other fruits, B., 41.

Haller, R., dyeing of wool fibre, B., 271. and Holl, F. W., division of wool into its histological components, B., 586. Action of halogens [iodine] on wool, B.,

and Wyszewianski, L., spectrographic exposures with coloured cellophane, B., 56.

Halliwell, G. P. See Westinghouso Electric & Manufg. Co.

Hallman, L. F. See Butts, J. S., and

Deuel, H. J., jun. Halloran, H. G., raw-hide products, (P.), B., 33, 949*.

Halloran, R. A. See Standard Oil Co. of California.

Hallows, R. L. See Gregory, F. E. Halls, E. E., developments in plastics, B., 286. Determination of free eyanide in cadmium-plating solutions, B., 890. Cutting media; modern sulphurised oils, B., 1030. Spoilage of non-ferrous components by acid treatments, B., 1157.

Halmos, H. See Geiger, E. Halman, E. T., and Cruickshank, E. M., fat metabolism in fowls, A., 510.

Halowax Corporation. See Hanson, E. R. Halpern, L., transfer of inorganic phosphorus across the red blood-cell membranc, A., 1135.

Halpern, N. See Corteggiani, E., and Gautrelet, J.

Halpern, O., and Gwathmey, E., gas-kinetics properties of light and heavy hydrogen, A., 558. and Schwinger, J., polarisation of elec-

trons by double scattering, 1439.

Halpern, S. R., and D'Amour, F. E., gonad-hypophyseal complex in œstrininjected rats, A., 1427.

Halpin, J. G., Holmes, C. E., and Hart, E. B., salt requirements of poultry, B., 1067.

See also Deobald, H. J., Haman, K., Phillips, P. H., and Schultze, M. O. Halpin, J. L., entrainment in the multipleeffect evaporator, B., 79.

Halstead, R. R., and Halstead Corp., gasfiltering device, (P.), B., 578. Halstead Corporation. See Halstead, R. R.

Halstrøm, F. See Hagedorn, H. C. Haltern, F. van, control of diseases of tomato seedlings, B., 116.

Halton, P., and Blair, G. W. S., physical properties of flour doughs in relation to their bread-making qualities, B., 712. Relationship botween conditions governing rupture and flow in flour doughs, B., 1175.

See also Fisher, E. A.

Halvorson, H. A., calcium and phosphorus contents of feeds, B., 666.

and Lachat, L. L., vitamin-D in poultry supplements, B., 666.

See also Lachat, L. L.

Ham, W. R., equations for diffusion of gases through metals, A., 1333.

and Santer, J. D., diffusion of hydrogen through iron and palladium, A., 1194. See also Sauter, J. D.

Hamada, H., energy of metastable nitrogen molecules, A., 1309.

Hamada, T., determination of temperature in the column of a discharge from intensity measurement of rotational band spectra, A., 398.

Hamada, T., intermediary metabolism of tryptophan. XXIV. Hæmatopoietic action of tryptophan, A., 1544. See also Ornstein, L. S.

Hamai, S., statistical mechanical treatment of absorption phenomena of gases in organic liquids. I. and II., A., 1334. Haman, K., Phillips, P. H., and Halpin,

J. G., distribution and storage of fluorine in tissues of the laying hen, A., 1412.

Haman, R. See Weckel, K. G. Haman, R. W., and Steenbock, H., antirachitic efficiency of irradiated milk, yeast milk, cod-liver oil, and irradiated cholesterol, A., 120. Antirachitic effectiveness of vitamin-D from various sources, A., 1033. Energy equivalents of vitamin-D units, A., 1161. Differ-

milks, B., 345. Hamann, G., determination of phenol by Messinger and Vortmann's method, B.,

ential antirachitic activity of vitamin-D

Hamant, C., hydrocyanic acid and nitrates in germination of sorghum, A., 256.

Hamasumi, M., centrifugally east iron pipe, (P.), B., 998.

Hamblen, E. C., ovaries after administration of a gonadotropic principle of anterior pituitary, A., 1563.

Hamblin, F. T. See Johnson, C. H. Hambourger, W. E., and Jamieson, R. B., jun., pressor effects of some new alkyl derivatives of β -phonylethylamine, A.,

1551. Hamburg, H. See Koller, G., and Krumholz, P.

Hamburg, M., and Pickholz, S., malt diastases. I. Influence of shaking on malt-diastase solutions. II. Influence of organic substances on malt-diastase solutions, B., 166, 565.

Hamburger, H.J., effect of dietary lipemias on insulin and adrenaline blood-sugar curves, A., 250.

See also Guercio, F.

Hamer, (Miss) F. M., thiolbenzthiazolc, A., 1275.

See also Beilenson, $B_{\cdot \cdot}$, and Fraser, $J_{\cdot \cdot}$ Hamer, P., water conditioning, B., 720. Hamer, W. E. Sco Monsanto Chemicals, Ltd.

Hamer, W.J. See Burton, J.O.

Hamet, R., physiological action of ergometrinine and of ergometrine, A., 376.

Hamid, A., and Mohammad, N., effect of delinting cottonseed with sulphuric acid on germination and yield, B., 1223.

Hamid, M. A. See Dunnieliff, H. B.
Hamika, F. See Grumsteidl, E.
Hamill, W. H., and La Mer, V. K., mutarotation of glucose in H₂O-D₂O mixtures, A., 569. Sucrose inversion in D_2O-H_2O , A., 685. Acid-base catalysis of mutarotation of glucose in protium oxide-deuterium oxide mixtures, A., 1075.

Hamilton, C. C., control of boring insects, B., 38. Control of insect pests of lawns and golf courses, B., 293. See also White, R. P.

Hamilton, C. S. See Bowers, G. W., and Lowe, W. G.

Hamilton, DeV., water considerations in pulp bleaching, B., 1200.

Hamilton, F. See Imperial Chem. Indus-

Hamilton, F. M., oil extraction processes and apparatus, (P.), B., 29.

Hamilton, G. M. See Callender's Cable & Construction Co.

Hamilton, J. B., Deming, C. L., and Allan, E., estrogenic substances of hypertrophied prostatic tissue and urine, A., 1564.

Hamilton, L. A., and Olcott, H. S., antioxidants and autoxidation of fats. Action of anti- and pro-oxidants, B.,

Hamilton, P. D. P. See Brit.-Geco Eng. Co. Hamilton, P. R. See Gregory, F. E.

Hamilton, R. A., tropical soils, with special reference to Malayan soils for rubber cultivation, B., 1010.

Hamilton, R. H., jun., determination of microgram quantities of iodine, A., 1351.

Hamilton, T. S., and Mitchell, H. H., modification of the Sherman method of studying the multiple nature of vitamins, with an application to vitamin- B_2 , A., 119.

Hamilton, W. G. See Standard Oil Co. of California.

Hamilton Laboratories, Inc. See Weed, L.A.

Hamister, V. C. Sec Schumacher, E. A. Hamm, H. A., and Patrick, W. A., retentivity of water by purified cotton cellulose, B., 828.

Hammar, H. E. See Trask, P. D. Hammarsten, E. See Eisler, B.

Hammel, F., anhydrous sulphates of the magnesium series, A., 413. Monohydrated sulphates of the magnesium

series, A., 1054. Hammel, W. M. See Gardner, J. H. Hammer, B. W., creating test for acetylmethylcarbinol plus diacetyl in butter cultures, B., 345. Diketone produced when butter cultures are steam-distilled with ferric chloride added, B., 664. Butter flavours, B., 855.

Hornemann, H. C., Parker, M. E., and Sealtest System Labs., treatment of lactic fluids, (P.), B., 1016.

Stanly, G. H., Werkman, C. H., and Michaelian, M. B., reduction of acetylmethylcarbinol and diacetyl to $2:3[\beta\gamma]$ butylene glycol by the citric acidfermenting Streptococci of butter cultures, B., 391.

Sco also Downs, P. A., Lane, C. B., and Olson, H. C.

Hammer, G., consistometer, B., 192.

and Schulz, L., origin of reddish and other discolorations in ceramic masses, which may be removed by a second

firing, B., 1094.

Hammer, O. H., gooseberry fruit worm and its control with derris and cubé

root, B., 1117.

Hammerich, T., testing suitability of methyl alcohol for use in motor fuel blends, B., 866.

See also Hagemann, A.

Hammerschmid, H., Linström, C. F., and Scheibe, G., spark and are spectrum of pure iron as accessory for qualitative emission spectrum analysis; iron alloys, A., 692.

Hammerschmidt, E. G., moisture in natural

gas, B., 914.

Hammett, F. S., developmental growth and the amino-acids. I. l-Histidine, A., 257. Genetics, thiol, and cancer, A., 504.

and Chatalbash, N., developmental growth and the amino-acids. III. d-Arginine, A., 374.

Hammett, F. S., and Elliott, M. L., developmental growth and the aminoacids. II. l-Tryptophan, A., 374. and Padis, K. E., dl-methionine in de-

velopmental growth, A., 1551. See also Reimann, S. P.

Hammett, L. P., reaction rates and indicator acidities, A., 176. Effect of structure on reactions of organic compounds; temperature and solvent influences, A., 1340.

See also Flexser, L. A., Gaines, A., jun., and Wooten, L. A.

Hammiek, D. L., Hampson, G. C., and Jenkins, G. I., electrical moments of p-benzoquinone and related compounds, A., 140.

and Williams, R. B., complex formation between polynitro-compounds and aromatic hydrocarbons. II. The system 2:4-dinitro-2'-methyldiphenyl-6carboxylic acid-benzene, A., 722.

and Young, R. P., complex formation between polynitro-compounds and aromatic hydrocarbons. III. Systems containing tetranitromethane, A., 1454.

See also Anderson, K. D.

Hammond, J., physiology of milk and butter-fat secretion. I. Milk pressure butter-fat secretion. I. Milk pressure in the udder. II. Development and evolution of milk secretion, A., 880.

See also Whetham, E. O. Hammond, J. C. See Titus, H. W.Hammond, L. J. L. See Rotter, G.

Hammond, W. A., reducing water content of liquids, (P.), B., 528. Hamnett, E. N. Seo Hind, H. L.

Hamon, V. See Du Nouy, P. L. Hamor, W. A., Duecker, W. W., and Texas Gulf Sulphur Co., plastics [sulphur], (P.), B., 275.

Hamori, A. Sec Armentano, L.

Hampel, J., active oxides. XCIV. Sorpgivo capacity of goethite during dehydration. XCVIII. Changes in sorptive power of mixtures of calcium oxide with ferric oxide, and of calcium oxide and beryllium oxide with chromic oxide, during chemical combination, A., 422,

Hampp, H., control of the flea-beetle in hops, B., 613.

Hampshire, C. H., and Page, G. R., chem-

ical assay of ergot, B., 715.

Hampson, G. C., and Weissberger, A., dipole moment and structure of organic compounds. XV. Electric moments of some chlorinated naphthalenes, A.,

See also Hammiek, D. L.

Hampton, H. J., microporous rubber compositions, (P.), B., 161. Hampton, V. J., solidified honey, (P.), B.,

Hampton, W. F. See Barnes, W. H.

Hampton, W. H. Seo Standard Oil Co. of California.

Hampton, W. M., efficiency of heat-absorbing glasses, B., 543.

Hamring, P. E., beating mills, (P.), B., 479. Hamsik, A., derivatives of blood-pigments, A., 1129.

Han, K. See Matsuno, K.

Hanack, B., and Haack, B., leaven and leavened dough, (P.), B., 570.

Hanahan, M. L., and Krebs Pigment & Color Corp., handling pigments for heat treatment, (P.), B., 243. Zinc sulphide pigments, (P.), B., 243. Hanak, A., [laboratory] distillation apparatus [for fermentation products], B.,

Hanawalt, J. D., and Rinn, H. W., identification of crystalline materials; classification and use of X-ray diffraction patterns, A., 1084.

Hance, F. E., rapid agricultural analysis, using "kit" methods, B., 1060.

and Yuen, Q. H., phosphate fixation in Hawaiian soils. IV. Determining capacity, rate, degree, and differentiation of fixation, B., 562.

Hanchett, A., and Solvay Process Co., dehydration of caustic, (P.), B., 987.

Hancock, E. G. Seo Hoffert, W. H. Hancock, W. J., minerals separating and

concentrating machine, (P.), B., 577. Hancock Brick & Tile Co. See Child, D. E. Handforth, S. L. See Du Pont de Nemours & Co., E. I.

Handke, K., determination of morphine in opium tinctures and extracts, B., 858.

See also Mannich, C.

Handley, F. W., fertilising tulips, B., 36. Handley, R. See Pratt, D. D.

Handovsky, H., acetaldchyde in muscular work and avitaminosis-B, A., 371.

Casier, H., and Schepens, C., stimulating action on metabolism of dinitrocompounds; acctaldeligde, diligdroxyacetone, and glutathione as antidotes, A., 515.

Handwerk, E. C. See Ginder, P. M.
Handy, R. S., classification apparatus,
(P.), B., 1023. Concentration of ores,
(P.), B., 1101.

Handy & Harman. See Leach, R. H. Hanel, R., Inconel, B., 697.

Hanemann, H., testing of soft solders, B., 793.

See also Dobinski, E.

Hanes, C. S., reversible inhibition of β -malt-amylase by ascorbic acid and related compounds, A., 109. Action of the two amylases of barley, A., 243. Determination of starch in plant tissue, particularly apple fruit, A., 533.

Hanff, E. A. Sco Dressler, P. d'H. Hanford, Z. M. Sco Supplee, G. C.

Hangai-Szabó, B. von. See Becker. Eugene.

Hanisch, G. See Butenandt, A.

Hanke, G. See Wieland, H. Hanke, M. E. See Johnson, M.

Hankins, G. A., Becker, M. L., and Mills, H. R., effect of surface conditions on fatigue-resistance of steels, B., 742.

Hankins, T. J., jun. Seo Westinghouse Lamp Co.

Hanks, W. V. See Standard Oil Development Co.

Hanle, W., and Heidenreich, F., polarisation of scattered Raman light, A., 137. Analysis of organic substances by means of the Raman effect, A., 1280.

and Junkelmann, R., energy and velocity as parameters for oxcitation by collision, A., 1167.

and Nöller, W., spectral investigation of the thread ray discharge, A., 770.

Hanley, F., and Mann, J. C., control of heart rot in sugar beet, B., 563. See also McMillan, J. A.

Hanlon-Buchanan, Inc. See Thompson, C.L.

Hanlon-Waters, Inc. See Waters, M. F. Hanmer, H. R. See Bradford, J. A.

Hann, R. M., derivatives of p-fluorobenzenesulphinie acid, A., 196.

Merrill, (Miss) A. T., and Hudson, C. S., crystalline d-a-galaheptose and its

derivatives, A., 193. Hanna, W. F., and Popp, W., control of cereal smuts by seed treatment, B., 36.

Hannay, J. R., textile assistants in calico printing, B., 831. Use and abuse of fastness guarantees [for coloured textiles], B., 1203.

Hannay, R. J., azoic colours in calico printing, B., 492.

See also Imperial Chem. Industries.

Hannerz, E. See Svanberg, O. Hannon, R. R. See Chu, H. I. Hannum, C. W. See Du Pont de Nemours & Co., E. I.

Hanrahan, M. S. See Gladney, A. L. Hans, T., Raney, C. E., and Brunt & Co., waterproofing composition and method of making and applying the same [to paper], (P.), B., 1088.

Hansa-Mühle Akt.-Ges., [vegetable] casein, (P.), B., 666.

Hansawerke Lürman, Schütte & Co., and Grabbe, H., sulphonation of higher aliphatic carboxylic acids and their esters, (P.), B., 1194.

Hanseatische Mühlenwerke Akt.-Ges., phosphatide preparations, (P.), B., 90. Products comprising vegetable phosphatides, (P.), B., 394.

Hansel, F. R. Sco Westinghouse Electric & Manufg. Co.

Hansen, A., preparation of a soluble dysentery toxin by grinding and extraction of the bacteria, A., 1562.

and Schmidt, S., preparation of aluminium hydroxide for adsorption of toxins (anatoxins) and ultraviruses, A., 224. Adsorption of foot and mouth disease virus on alumina, A., 641. Sec also Schmidt, S.

Hansen, A. E., Wilson, W. R., and Williams, II. II., serum-lipin changes in relation to intermediary metabolism of fat, A., 886.

See also Wilson, W. R.

Hansen, B. See Volmar, Y.

Hansen, C. J. See Koppers Co. of Delaware. Hansen, D. A., utilisation of whale meat, (P.), B., 619, 666.

Hansen, D. W., and Staley Manufg. Co., A. E., [adhesive for nitrocellulose] coating material, (P.), B., 113.

Hansen, E., and Hartman, H., occurrence in pears of metabolic gases other than carbon dioxide, A., 1035.

Hansen, F., bearing metals with a copperzinc-tin base, B., 1043.

Hansen, F. A., Koch, H. E., and Hevi Duty Electric Co., heat treatment [of ferrous articles] in circulatory gases, (P.), B., 602.

Hansen, H. L. Sco Fosdick, L. S. Hansen, H. V. Sco Gilkey, W. K. Hansen, I. B. Sco Leonard, S. L.

Hansen, Klaus, and Blegen, E., action of heavy water on bacteria, A., 1301.

Rustung, E., and Hveding, J., content of heavy water (deuterium oxide) in medicinal mineral waters, A., 1086. Hansen, Kurt. See Fischer, Hans.

Hansen, M. S., and Reilly, P. C., froth-flotation process, (P.), B., 154. Froth production and froth-producing agent, (P.), B., 310.

Szegvari, A., Morton, H. A., and Amer. Anode, Inc., articles from aqueous rubber dispersions, (P.), B., 656. 6

Hansen, O. H., heat treatment [of foodstuffs], (P.), B., 618. Hansen, W. C., and Amer. Cyanamid Co.,

waterproofed gypsum [product], (P.),

Hansgirg, F., and Amer. Magnesium Metals Corp., substantially puro magnesium, (P.), B., 843. Metallic magnesium, (P.), B., 1162.

Hansley, V. L., preparation of acyloins of high mol. wt., A., 191.

See also Du Pont de Nemours & Co., E, I.

Hansma, J.J., kapok and other [upholstery] filling materials. I. Determination of relation between springing capacity and the pentosan content, B., 1199. Apparatus for determination of springing capacity of kapok and other [upholstery] fillings, B., 1199.

Hansmann, G. H. See Booher, L. E. Hanson, A. M. See Rowntree, L. G. Hanson, C. W. See Betterton, J. O.

Hanson, D., and Pell-Walpole, W. T., constitution of tin-rich antimonytin alloys, A., 676. Constitution of cadmium-tin alloys, A., 1193.

and Sandford, E. J., creep of tin and tin alloys. I., B., 502.

See also Brit. Non-Ferrous Metals Res. Assoc.

Hanson, E. R., Brown, S., and Halowax Corp., light-coloured liquid chlorinated naphthalene, (P.), B., 1195. Hanson, H. E. Sce Berg, C. P.

Hanson, J., Neale, S. M., and Stringlellow, W. A., absorption of dyes by cellulose. VI. Effect of modification of the cellulose and a theory of the electrolyte effect, A., 154.

Hanson-Van Winkle-Munning Co. Hogaboom, G. B.

Hansson, L. See Platon, B.

Hanszen, A., bactericidal power of the stomach: somo influential factors, A., 1562.

Hantla, A., and Mid-Co Products Co., dryer, (P.), B., 961.
Hantschmann, L., vasoconstrictive sub-

stance in blood, with special reference to high blood pressure, A., 1284.

Hanus, F. Sco Zinke, A.

Hanuš, J., and Voříšek, J., analysis of iron and nickel present together, A.,

Hanusch, H., and Houghton & Co., E. F., cementing [case-hardening] agent for steel and iron, (P.), B., 1161.

Hanut, C.J., action of ascorbic acid on blood congulation in vitro and in vivo in tho rabbit, A., 765. Action of ascorbic acid on blood coagulation in normal or vitamin-C-deficient guinea-pigs, A.,

Hanzlik, P. J., and Richardson, A. P., eyanide antidotes, A., 108. State of bismuth in body-fluids and tissues, A.,

Happey, F. See Brit. Celanese.

Haq, M. I., and Samuel, R., absorption spectra of nitrates in the vapour state, A., 661. Absorption spectra and linkage of inorganic salts in the vapour state, A., 775. Absorption spectra and linking of inorganic nitrates and sulphates in the vapour state, A., 920.

Hara, R., and Abe, S., metallic sodium, (P.), B., 604. See also Abe, S.

Harada, Masao, distribution and mineralogical classification of decomposed pumices in the north-western part of Kwanto district, Japan, A., 818.

and Titani, T., isotope exchange between water and some organic compounds, A., 159, 1338. Velocity of the exchange reaction of the hydrogen atom between sugar and water, A., 569. Isotopic exchange between anilino hydrochloride and heavy water, A., 1339.

Harada, Mitsuru, weathering of igneous rocks; basalt, B., 850.
 Harada, T., influence of calcium on carbo-

hydrato metabolism, A., 104.

Haraldsen, H., and Neuber, (Frl.) A., magnetic behaviour in the chromiumsulphur system, A., 671.

Harant, L. See Müller, Robert. Harbaugh, M. D. See Burris, S. J., jun. Harben's (Viscose Silk Manufacturers), Ltd., and Leon, M., manufacture of indiarubber articles by extrusion, (P.), B., 706.

Leon, M., and Goodwin, L. C., rubber yarn or thread, (P.), B., 244.

Harber, L. S., Pointon, J. E., Baker Perkins, Ltd., and Anc. Établ. A. Savy, Jeanjean & Co., plant for manufacture of soap, (P.), B., 1107.

Harberts, (Mlle.) C. L., Heertjes, P. M., Hulst, L. J. N. van der, and Waterman, H. I., absorption spectra. I. Applicaation to intermediate products of dyes, A., 661, 1443.

Harbirshaw Cable & Wire Corporation.
See Del Mar, W. A.

Harbison-Walker Refractories Co., Harvey, F. A., and Birch, R. E., magnesia refractories, (P.), B., 740.
See also Harvey, F. A.

Harcourt, G. A. See Graton, L. C.

Harcourt, G. N., and Cross Development Corp., light hydrocarbons, (P.), B., 534. Harde, E. See Bullowa, J. G. M., and

Philippe, M.
Harden, W. C. See Rice, R. V.
Harder, C. M., red glazes and underglaze-

red by reduction, B., 454. Hardgrove, R. M. See Bailey, E. G.

Hardie, D. W. F. Soo Imperial Chem. Industries.

Hardin, L. J. See MacIntire, W. H. Harding, C. K., and MacGlashan, W. F., light-weight aggregate, (P.), B., 695. Harding, E. See Runyan, A. L.

Harding, E. A. See Du Pont de Nemeurs

& Co., E. I. Harding, H. L. See India Rubber, Gutta

Percha & Telegraph Works Co. Harding, J., absorption of monochromatic

light in iodine vapour, A., 538.

Harding, K. See Somer, A. J.
Harding, K. F. See Brocklesby, H. N.
Harding, M. W., and Moberg, E. C., determination and quantity of boron in sea-water, A., 183.

Harding, P. L., distribution of total soluble solids and catalase in different parts of

Jonathan apples, A., 1433.

Harding, R., jun., and Sirian Lamp Co., electrical-discharge devices: lamps, radiation devices, rectifiers, relays, etc.,

(P.), B., 748.

Harding, V. J., Nicholson, T. F., and Archibald, R. M., properties of reducing material in certain fractions of normal urines. I. Nature of free fermentable sugars and fermentable sugars produced on hydrolysis in fasting urines, A., 502.

Harding, V. J., Nicholson, T. F., and Jackson, S. H., properties of reducing material in certain fractions of normal urines. II. Effect of diet on hydrolysable sugar in urine, A., 502. Harding, Ltd., S. C. & P. See Leuch,

W. P.

Hardinge, H., and Hardinge Co., Inc., sedimentation apparatus, (P.), B.,

See also Hardinge Co., Inc.

Hardinge Co., Inc., and Hardinge, H., ore-reducing [milling] machines, (P.), B., 304.

See also Hardinge, H.

Hardt, G., formation of wind-blown soils and liming of marshy soils in dry areas,

Hardy, C., technique of powder metallurgy, B., 502.

See also Hardy Metallurg. Co.

Hardy, C. R. See Pritchett & Gold & E.P.S. Co.

Hardy, D. V. N., interaction of olefines, carbon monoxide, and steam, A., 590. Interaction of carbon monoxide and alcohols. II. Synthesis of propionic and isobutyric acids. III. Synthesis of methylethylacetic and pivalic acids, A., 590. Identification of acids and esters, A., 619.

See also Morgan, (Sir) G. T.

Hardy, E., cotton and its insect pests, В., 38.

Hardy, F., McDonald, J. A., and Rodriguez, G., cacao soil surveys, B., 657.

Hardy, H. A., manufacture of agglomerates of carbonaccous material without addition of pitch, (P.), B., 582.

Hardy, J. D., and Muschenheim, C., diffuse infra-red transmission of solids, A., 1318.

Hardy, J. I., determination of fibre fineness and cross-sectional variability, B., 924.

Hardy, R. D. See Brit. Coal Distillation. Hardy Metallurgical Co., and Hardy, C., production of metallic articles from powders, (P.), B., 553.

Harger, R. N., micro-determination of alcohol in biological material, A.,

and Goss, A. L., so-called normal alcohol of the body, A., 260.

Hargrave, J. Sco Thompson, J. K. Hargreaves, C. C. Seo Chen, K. K., and

Swanson, E. E. Hargrove, G. C., Montgomery, W. B., and Gasoline Products Co., cracking of hydrocarbons, (P.), B., 358.

Haring, F. See Stahl, W. Haring, M. M. See Alexander, L. T. Haring, W. J., and Davey, W. P., expansion of copper from absolute zero to its m.p., A., 1192.

Haringhuizen, P. J., corrosion of metals by oils, B., 698.

and Was, D. A., thin layers of tin and other metals. I. Influence of thin metal layers on deterioration of technical insulating oils. II. Corrosion of metals by technical insulating oils, B., 134, 581.

Harington, C. R., and Mead, T. H., synthesis of peptides containing cystine and glutamine; possible bearing on structure of insulin; amide nitrogen of insulin, A., 1236.

and Neuberger, A., electrometric titration of insulin; iodinated insulin, A., 902.

Harispe, J. V., m-xylylacetic acid; paration from pinonic acid, A., 992. 2:4-Dimethylphenylacetic [m-4-xylylacetic] acid and its derivatives, A., 1506.

Harker, D., application of the three-

dimensional Patterson method and crystal structures of proustite, Ag₃AsS₃, and pyrargyrite, Ag₃SbS₃, A., 926. Crystal structure of cupric chloride dihydrate, A., 1327.

Harker, G., effect of time and intensity of radium radiation on inverting capacity

of yeast, A., 523.

and Moppett, W., effect of metabolic inhibitors on therapeutic irradiation of mouse tumours, A., 751.

Harkins, W. D., nuclear chemistry, the neutron, and artificial radioactivity, A., 919. Nuclear reactions and their classification by atomic and isotopic numbers, A., 1175. Relations of carbon and its compounds, A., 1484.

Carman, E. F., and Ries, H. E., jun., surface potentials and force-area relations of unimolecular films. II. d-Pimaric acid and tetrahydro-d-pimaric acid, A., 26. Unimolecular films of molecules which lie flat on the surface of water. I. Surface pressures and potentials of films of long molecules: polymerides of i-hydroxydecoie acid, A., 27. Rearrangement of molecules in unimolecular films; polycyclic compounds of the five-ring series, A., 551. Rearrangement of molecules in plastic unimolecular films: pressure-area and potential relations for polycyclic compounds of the five-ring series, A., 1196.

and Gans, D. M., artificial radioactivity and conversion of kinetic into y-ray energy associated with nuclear disintegration by neutrons, A., 403.

Gans, D. M., Kamen, M., and Newson, H. W., scattering of protons in collisions with neutrons, A., 1173.

and Myers, R. J., multimolecular films, A., 1335.

See also Florence, R. T., Gans, D. M., and Moon, R. J.

Harkness, R. W., kinetics of thermal cistrans isomerisations, A., 939.

Harkon, J. F., creosote treatment of green beech, birch, and maple ties, B., 62. Harkort, D., working-up of materials con-

taining lead, (P.), B., 371.

Harlampovich, A. B. See Postovski, J. J. Harlan, H. R., colour permanency of synthetic and natural iron oxides [in paint], B., 243.

Harlan, W. R. See Bradford, J. A.

Harlay, V., cupric and cuprous compounds of thiosemicarbazide and of its derivatives, A., 459. Determination of semicarbazide and semicarbazones, A., 493. Reduction of silver nitrate by cuprous oxide applied to determination of reducing sugars, A., 873.

Harley, C. P., water-core [of apples], B.,

Harley-Mason, V. B., apparatus for automatically controlling temperature, pressure, or other physical condition, (P.), B., 107.

Harlitz, S. J. A. I. See Haglund, T. R. Harlow, E. V. See Koppers Co. of Delaware. Harlow, I. F. See Dow Chem. Co. Harman, M. W., and Rubber Service Labs.,

reaction products of mercaptobenzthiazole with carboxylic acid halides [vulcanisation accelerators], (P.), B., 848.

Harman, R. W., refining quality of raw sugar, B., 117.

Harmon, I. W., hamoglobin regulation in chickens, A., 1400.

Harmon, R. R., and Peabody Eng. Corp., apparatus for cleaning gases, (P.), B., 529.

Harmonicolor Films, Ltd., coloured picture films, (P.), B., 1021.

Harms, A. H. Sec Buckner, G. D.

Harms, H., density and molecular polaris-ation of menthol and borncol, A., 271.

Harms, J., and Jander, G., titrimetric determination of phosphoric acid in perchloric acid solution as bismuth phosphate, A., 303. Conductometric determination of fluorine down to minimal quantities, A., 950.

See also Diels, O.

Harnack, V. L. See Bowman, J. Harned, H. S., and Kazanjian, G. L., ionisation constant of acetic acid in dioxan-water mixtures, A., 1463.

Keston, A. S., and Donelson, J. G., thermodynamics of hydrobromic acid in aqueous solution from c.m.f. measurements, A., 936.

and Morrison, J. O., thermodynamics of hydrochloric acid in dioxan-water mixtures from e.m.f. measurements. I. Standard potentials, A., 1463.

and Thomas, \hat{H} . C., thermodynamics of hydrochloric acid in methyl alcoholwater mixtures from e.m.f. measurements, A., 797.

Harner, H. R., Carney, T. W., and Eagle-Picher Lead Co., paste for [lead] storage-battery plates, (P.), B., 241. See also Hatfield, J. E.

Harnes, A. R., influence of certain lipins on growth of a rabbit neoplasm, A., 757. Harning, H. E. See Burns, R. M.

Harnisch, A. M., and Scherbakov, M. K., sensitivity of urea resins to electrolytes, B., 160.

Harnist, C., production of sulphates and

sulphur, (P.), B., 1037.

Harnwell, G. P., thin windows for photoelectric cells and counters, A., 814.

Smyth, H. D., and Urry, W. D., purification and spectroscopic evidence for He²₂, A., 301. Smyth, H. D., Voorhis, S. N. van, and

Kuper, J. B. H., production of H³ by a canal-ray discharge in deuterium, A., 130.

See also Bleakney, W., and Smyth, H. D. Harold, B. A., use of rubber latex with textiles, B., 590.

Haroldson, A., and Continental Diamond Fibre Co., heat-convertible resin, (P.), B., 381. [Flexible, partly heat-convertible] resin, (P.), B., 381.

Harper, R. L., Macdonald, R., jun., and Harper Electric Furnace Corp., electric

resistor, (P.), B., 556. Harper, V. L., and Wyman, L., variations in naval-stores [pine gum] yields associated with weather and specific days between chippings, B., 847.

Harper, W. R., exact theory of coagulation of spherical particles arising from

thermal agitation, A., 1200. Harper, W. W. See Neher, H. V. Harper Electric Furnace Corporation. See Harper, R. L.

Harrassowitz, H., Gorman calcium chloride springs, A., 584. Alkaline springs and their geochemical significance, B., 46.

Harreveld, A. van, Grutterink, B. W., and Noyons, A. K. M., effect of external factors on perspiratio insensibilis, A., 99.

Harrigan, H. R., Krauss, J. M., and District of Columbia Paper Manufg. Co., paper manufacture, (P.), B., 314.

Harriman, L. A., causes of slow acid production in butter cultures, B., 426.

Harrington, E. L. See Zahn, C. T. Harrington, R. H. See Gen. Electric Co. Harris, A. W., utilisation of waste [metal-] pickling acid, (P.), B., 602.

Harris, B. J., chemical composition [for use in blending margarine], (P.), B., 750.

Harris, B. R., esters of polyglycerols, (P.), B., 1192. Wetting agent, (P.), B., 1192. Ester(s) of hydroxycarboxylie acids, (P.), B., 1194. Nitrogen-containing esters, (P.), B., 1198. Chemical composition [emulsifying agent], (P.), B., 1216. Margarine, (P.), B., 1232. [Candy] confections, (P.), B., 1233. Confections, (P.), B., 1233. See also Epstein, A. K.

Harris, C. R. See Du Pont de Nemours & Co., E. I.

Harris, E. E., wood lignins, A., 994.

Harris, F. C., and Seth, B. R., variation of double refraction in celluloid with the amount of permanent stretch at constant temperature and at different temperatures, A., 780.

Harris, F. E., heat-treating furnaco, (P.), B., 528.

Harris, F. W. See Tainton, U. C.

Harris, G. H., and Woods, J. J., seasonal variation of plant nutrients in raspberry plantings under different cultural treatments, B., 36.

Harris, H., and Smith Corp., A. O., airhardening steel, (P.), B., 239. Copper-containing steel, (P.), B., 601.

Harris, H, H, ornamental panel of rustless steel and vitreous enamel, (P.), B., 795.

Harris, J. C. See Sutherland, G. Harris, J. E. See Bell Telephone Labs. Harris, J. E., jun. See Klooster, H. S. van. Harris, J. E. A. See Morton, J.

Harris, J. M. See Standard Oil Development Co.

Harris, L., Ashdown, A. A., and Armstrong, R. T., cyclopropane; Raman spectrum and polymerisation by ultraviolet light, A., 777.

See also Ashdown, A. A., King, G. W., and Underwood, H. W., jun.

Harris, Leslie E. See Berger & Sons, Ltd., L. Harris, Lloyd E., and Tebow, E. D., action of alkalis and alkali salts on antipyrine, A., 344.

Harris, L. J., "glacial acetic acid" method of determination of amino-or other basic groups in amino-acids, etc., A., 219.

and Leong, P. C., vitamins in human nutrition; excretion of vitamin-B1 in human urine and its dependence on the dietary intake, A., 904.

See also Abbasy, M.A., and Birch, T.W. Harris, M., and Kanagy, J.R., aminonitrogen contents of wool and collagen, B., 13.

See also Crowden, J. A., and Smith, A. L. Harris, M. J. See Linde Air Products Co. Harris, P. L., and Smith, J. C., addition of hydrogen bromide to triple and double linkings; undecynoic, undecenoic, and ik-epoxyundecoic acids, A., 53. Alkaline halogenation; bromination of sodium benzoate, A., 330.

Harris, R. S. See Wyman, E. T. Harris, R. V., growing healthy raspberries;

control of posts and diseases, B., 898. Harris, S. See Kraft, R. M.

Harris, S. A. See Levene, P. A.

Harris, S. C. See Jewett, M. G.

Harris, S. E., and Christiansen, W. G., determination of small quantities of fluorine in dicalcium phosphate, A.,

See also Christiansen, W. G., and Grave,

Harris, T., and Eagle, H., immunological specificity of the euglobulin and pseudoglobulin fractions of horse and human serum, A., 224.

Harris, T. L., Herbert, R. W., Hirst, E. L., Wood, C. E., and Woodward, H., optical rotatory dispersion in the carbohydrate group. VII. Glucal scries, A., 1363.

Hirst, E. L., and Wood, C. E., optical rotatory dispersion in the carbohydrate group. VI. Amide rotation rule, A., 60.

Harris, W. D., plastics from high-pentosan cellulosie material, B., 419.

Harris, W. M., and Schattenberg, H. J., agranulocytic angina; effects of toxic products of certain bacteria recovered from human stools and blood on leucocytes of animals, A., 751.

Harrison, A. H., aëration of slurries, (P.), B., 456.

and Carbonated Lime Processes, aëration of [building-material] slurries, (P.), B., 149.

Harrison, A. L., physiology of bean mosaic, B., 386.

Harrison, C. A., heat exchanger, (P.), B., 960.

Harrison, C. F. R. Soe Imperial Chem. Industries.

Harrison, E. P., and Gollop, H., motion of liquid around an obstacle during electrodeposition, B., 328.

Harrison, F. R., alkalis and wool, B., 13. Harrison, G. B., photographic reversal processes, (P.), B., 668. and Threadgold, S. D., printing or repro-

ducing colour photographs, (P.), B.,

Harrison, G. R., and Bartlett, W. W., wavelength measurements in spectra of the neodymium arc and the standard Pfund iron arc, A., 1310. See also Duncan, A. B. F.

Harrison, H. A., standard methods of determining fastness to light of coloured papers, B., 980*.

See also Broadbent, F. D. Harrison, H. C. See St. Helens Cable &

Rubber Co. Harrison, H. E., Darrow, D. C., and Yannet, H., total electrolyte content of animals and its probable relation to distribution of body-water, A., 632.

and Englis, D. T., occurrence of a pectin material in artichoke syrup, B., 42.

Harrison, J. See Hiscox, E. R.
Harrison, J. S. See Aluminium, Ltd.
Harrison, J. W., thermogenesis in hay-

inhabiting fungi, A., 639. Harrison, K. See Cook, R. P.

Harrison, L. E., and Oramold Products Corp., thermoplastic composition, (P.), B., 1111. Plastic impression materials, (P.), B., 1111. Dental impression materials, (P.), B., 1111. See also Rossem, W.J. van.

Harrison, R. W. See Pottinger, S. R. Harrison, T. H., and El-Helaly, A. F., Lambertella corni-maris, von Höhnel, a brown spotted parasitic discomycete, A.,

Harrison, T. R. See Brown, R. P.

Harrisson, J. W. E., approximate determination of milk solids, including lactic acid in condensed buttermilk and related products, B., 217. See also La Wall, C. H.

Harrold, G. C., and Hemphill, M. G. [with Ray, F. E.], aliphatic diazo-compounds. II. Phenyl-a-naphthyldiazomethane, A., 838.

Harrop, G. A., Soffer, L. J., Nicholson, W. M., and Strauss, M., adrenal cortex. IV. Effect of sodium salts in sustaining the adrenalectomised dog, A., 643.

Harry, R. G., almond and apricot-kernel oils, B., 334. Identification of "date pulp " in jams, etc., B., 569. Analytical characteristics of date-stone oil, B., 941. Harsch, J. W., and Leeds & Northrup Co.,

diffusion-alloy cases; case-hardening of metal articles, (P.), B., 153.

Harshaw Chemical Co., electrodeposition of metals, (P.), B., 331. Electrodeposition of metals [nickel], (P.), B., 376, 506.

Hart, A. See Goettsch, M. Hart, E. B. See Deobald, H. J., Halpin, J. G., Kline, O. L., Kohler, G. O., Phillips,

P. H., and Schultze, M. O.

Hart, E. J. See Fricke, H. Hart, F. W. See Hays, E. E. Hart, G. H. See Cole, H. H., and Guilbert, H. R.

Hart, L. P., p_H values of aqueous pigment extracts, B., 650.

and Gardner, H. A., glycerol phthalate solid colours, B., 607.
See also Gardner, H. A., and Sward,

G. G.

Hart, M. C., and Woodruff, E. H., alkylphenols. I. 4-n-Alkylpyrogallols, A.,

Hart, P. D'A., and Verney, E. B., rate of water loss by man at rest. I. Constanttemperature and -humidity room. II. Spontaneous diuresis during prolonged rest, A., 1548.

Hart, R., analysis of sulphonated (sulphated) oils; determination of organically combined sulphuric anhydride, B.,

Hart, T. H., starch viscosity, B., 854. Hart, W. F., and Northup, M. A., paraffin hydrocarbon from urine of pregnancy, A., 362.

See also Niederl, J. B.

Harte, C. R., jun., drum dryers; equipment for chemical process industries, B., 303. Wood tanks; equipment for chemical process industries, B., 321.

Harte, R. A., semi-micro-Kjeldahl determination of nitro- and azo-nitrogen, A., 219.

See also Elek, A.

Harteck, P. [with Roeder, E.], active hydrogen, oxygen, and nitrogen at pressures up to 20 mm., A., 1225.

and Knauer, F., diffusion of slow neutrons in flowing water, A., 1172.

See also Farkas, A.

Hartelius, V., and Hjorth-Hansen, S., occurrence of growth-promoting factor B in animal organs, A., 760.

See also Nielsen, Niels.

Hartford, C. E., and Nat. Cornstalk Processes, synthetic lumber, (P.), B., 992.

Hartford, F. M., muffle kiln, (P.), B., 595. See also Kier, S. M.

Hartford Empire Co., and Mulholland, V., glass-tank furnaces and manufacture of glass therein, (P.), B., 739.

See also Eastwood, H. B., and Howard, G.~E.

Harth, P. E., manufacture of paints or similar coating materials, (P.), B., 847.

Hartley, A. C., and Vivian, A. C., use of welding in transportation and storage of oil, B., 501.

Hartley, F., and Linnell, W. H., potassium hydroxyquinoline sulphate, B., 298. Hartley, F. M., protection of steel against

corrosion, B., 150.

Hartley, G. S., Collie, B., and Samis, C. S., transport numbers of paraffin-chain salts in aqueous solution. I. Measurement of transport numbers of cetylpyridinium and cetyltrimethylammonium bromides and their interpretation in terms of micelle formation, with data for cetanesulphonic acid, A., 799.

Hartley, Harold J. See Birmingham Elec-

tric Furnaces.

Hartley, Henry J., and Nichols Eng. & Res. Corp., treatment of sewage or similar material, (P.), B., 958.

Hartley, K., and Baker, D. W. H., unusual variation in butter fat content of milk, B., 391.

Hartley, W. See McTaggart, A. Hartman, A. See Jablezyński, K.

Hartman, E. F., Whitmore, W. F., and Protexol Corp., impregnation of wood and other cellulosic materials, (P.), B., 1043.

Hartman, F. E., Montgomery, F. H., and Montgomery, W. R., ozone generator, (P.), B., 594.

Hartman, G., potato psyllid control, B., 853.

Hartman, H. See Hansen, E. Hartman, H. B., purification of water [by ozone], (P.), B., 574. Fluid mixing apparatus [for ozonisation of water], (P.), B., 574.

Hartman, R. J., and Cheng, L. T., isoelectric point of glycinin, A., 796. Soyabean proteins. II. Preparation of glycinin, A., 1165.

Hartman, W. W., Byers, J. R., and Dickey, J. B., hexadecyl iodide, A., 587. and Dickey, J. B., 2:6-dibromo-4-nitro-

phenol, A., 465.

Dickey, J. B., and Stempfli, J. G., 2:6-dibromobenzoquinone-4-chloroimide, A.,

Hartmann, Adolf. See Fromherz, II., and Wieland, H.

Hartmann, August, Hoefinghoff, W., Meyer-Gaus, K., and Amer. Bemberg Corp., treatment of artificial silk, (P.), B., 1202.

Hartmann, E. See Giroud, A. Hartmann, F., viscosity of open-hearth slag, B., 1155. Viscosity of open-hearth

furnace slags, B., 1209.

Hartmann, Heinz, investigation of the origin of urinary protein in nephritis by the protective proteinase reaction, A., 1541.

Hartmann, Hellmuth, and Orban, J., electrolysis of phosphate melts. II. New tungsten phosphide W₄P, A., 571.

Hartmann, S. H., measuring apparatus for determining humid content of granular substances by measurement of dielectric constant of the same, (P.), B., 284. Cream, (P.), B., 1126.

Hartmann, W., electrical investigation of oxidic semi-conductors, A., 1446.

and Schottky, W., direction of rectifier action for excess- and defect-semiconductors, A., 1181.

Hartnagel, J. See Mohler, H. Hartner, F., and Schleiss, E., determination of glutathione in biological material. A., 1436.

Hartner-Seberich, R., gas producers for motor vehicles and their fuels; development with particular reference to use of fossil fuels, B., 258.

Hartong, B. D., degree of modification of malt. I. and II., B., 565.
Hartree, D. R., and Hartree, W., self-

consistent field, with oxchange, for beryllium. II. The $(2s)(2p)^3P$ and 1P excited states, A., 1046. Self-consistent field,

with exchange, for Cl-, A., 1442. Hartree, E. F. See Keilin, D. Hartree, W. See Hartree, D. R.

Hartridge, O. C., and McLennan, A., treatment of leather with rubber, (P.), B.,

Hartshorn, L., and Ward, W. H., measurement of permittivity and power factor of dielectries at frequencies from 104 to 10⁸ cycles per second, B., 1213.

Hartshorne, N. H., Walters, G. S., and Williams, W. O. M., polymorphism. III. Linear velocity of transformation of a- into β -o-nitroaniline, A., 164.

Hartt, C. E., fluctuations of sugars in leaf blades of sugar cane, B., 1061.

Hartung, E. F., and Bruger, M., cholesterol content of plasma in arthritis,

and Greene, C. H., scrum-calcium in arthritis, A., 751.

Hartung, W. H., and Sharp & Dohme, Inc., amino-alcohols, (P.), B., 89. Hydroxyphenylpropanolamine [β -amino- α -m- or p-hydroxyphenylpropanol] hydrochloride, (P.), B., 476. Preparation of hydroxyphenyl a-oximinoalkyl ketones, (P.), B., 476.

See also Miller, E., and Young, W. G. Hartwell, J. L. See Fieser, L. F. Hartwig, C. E. See Barrett Co.

Harty, E. A. See Gen. Electric Co. Hartzell, A., and Wilcoxon, F., chemical and toxicological studies of organic thiocyanates [as insecticides], B., 612. Relative toxicity of pyrethrins-I and -II to insects, B., 1171.

See also McCallan, S. E. A. Hartzler, E. R. See Holmes, H. N.

Harvel Corporation, and Harvey, M. T. treatment of cashew nutshell liquid and products obtained thereby, (P.), B., 1006.

See also Damitz, F. M., and Harvey, M. T.

Harvey, A. See Parker, J. G.

Harvey, E. H., accelerated weathering, B.,

and Perkins Glue Co., manufacture of vegetable glue, (P.), B., 1222.

Harvey, E. M., and Rygg, G. L., colorimetric determination of narangin, A., 1571. Physiological changes in the rind of California oranges during growth and storage, B., 904. Field and storage studies in the composition of the rind of marsh grapefruit in California, B., 904.

Harvey, Eric M., and Boren, J. A., refractory brick, (P.), B., 147. Harvey, E. W. See Barrett Co.

Harvey, F. A., Birch, R. E., and Harbison-Walker Refractories Co., magnesia refractory, (P.), B., 1095.

Sco also Harbison-Walker Refractories

Harvey, M. T., and Harvel Corp., adhesive, (P.), B., 850. Distillation of marking nutshell liquid and products therefrom, (P.), B., 1057.

See also Harvel Corp.

Harvey, R. B., Combs, W. B., Landon, R. H., and Child, A. M., extending use of melons by frozen storage, B.,

and Fulton, R. R., relation of p_H and total acidity to taste of tomatoes,

B., 42. Harvey, W. A. See Williams, R. O.

Hasan, C., and Hunter, R. F., unsaturation and tautomeric mobility of heterocyclic compounds. VII. Selenazole derivatives, A., 214.

Hasche, R. L., and Amer. Smelting & Refining Co., compression of corrosive gases, (P.), B., 723.

and Carbonic Development Corp., solid carbon dioxide, (P.), B., 102, 594.

and Smith Corp., A. O., concentration of formaldehyde, (P.), B., 920.

Hasegawa, C., pharmacological action of vitamin-B preparations and their constituents, particularly adenylthiomethylpentose, A., 764. Hasegawa, H. See Onodera, I.

Hasegawa, M., effect of age and method of administration on adrenaline action, A., 1158.

Hasegawa, T., effect of bile acids on sugar assimilation in deparcreatised dogs, A., 106.

Haselbach, A., brewing of [sweetened] beer, (P.), B., 1064.

Haselbe, T. See Hattori, Y.
Hashi, K., chlorohydroxystearle acids from oleie and elaidic acids, A., 455. Glycidic acids from chlorohydroxystearic acids, A., 966.

Hashima, H. See Nishida, Kitsuji.

Hashimoto, A., and Kawana, T., constituents of Hydrangea paniculata; hydragin, A., 651. Haskell, C. C., influence of the anæsthetic

on results of digitalis assay by the cat method of Hatcher and Brody, A., 1552.

Haskins, H. D. See Jones, L. H. Haskins, W. T. See Drake, N. L.

Haslam, A., tungsten carbide and cobalt cutting material, B., 457.

Haslam, J. H., and Steele, F. A., retention of pigments in paper, B., 186.

Haslam, R. T. See Standard-I. G. Co. Hasler, A. D., physiology of digestion of plankton Crustaceæ. I. Digestive enzymes of Daphnia, A., 379.
Hasler, M. F., and Lindhurst, R. W.,

rotating sector for quantitative analytical spectrography, A., 581.

Haslewood, G. A. D., reaction adaptable to volumetric determination of silver chloride, A., 1082.

and Drummond, J. C., antirachitic substance from tunny-liver oil, A.,

and King, E. J., iodometric determination of chloride in small amounts of blood, A., 876.

See also King, E.J.Haspas, K., arc spectrum of cerium, A., Hass, H. B., Hodge, E. B., and Vanderbilt, B. M., nitration of gaseous paraffins, A., 587.

McBee, E. T., Hinds, G. E., and Gluesen-kamp, E. W., synthesis of cyclopropane, B., 1140.
McBee, E. T., and Purdue Research

Foundation, chlorination process and product thereof, (P.), B., 870. Chlorination of propane and its partly chlorinated derivatives, (P.), B., \$70.

McBee, E. T., and Weber, P., chlorination of paraffins, A., 587.

and Purdue Research Foundation, deinking of paper, (P.), B., 15.

Hass, S. See Scholl, R. Hasse, K. See Micheel, F.

Hassel, O. See Finbak, C., and Frivold, O. E.

Hasselbach, A., heat-exchange apparatus, (P.), B., 399.

Hasselbach, F., treatment of tuberculous lung-bleeding with vitamin-C (Cebion-Merck), A., 882.

Hasselstrom, T., flotation process [for

non-metallic minerals], (P.), B., 407. Flotation reagent [for non-metallic minerals], (P.), B., 407. and Bogert, M. T., sapinic acids from

various species of pine and spruce,

A., 208.

See also Adelson, D. E.

Hasselt, W. van. See Kögl, F

Hassid, W. Z., structure of [the mono]sodium sulphate ester of galactan from Irideæ laminarioides (Rhodophyceæ), A., 193. Determination of reducing sugars and sucrose in plant materials, A., 650. Comparison of total nitrogen in wheat seeds by the Gunning (modified Kjeldahl) and Dumas methods, A., 1570. Carbohydrates in Irideæ laminaroides (Rhodo-

phyceæ), A., 1571. Hastings, A. B., analysis of otoliths and endolymphatic sac deposits in Ambly-

stoma tigrinum, A., 361.

See also Davis, J. E., McLean, F. C., Schlutz, F. W., and Shock, N. W. Hastings, E. G., methylene-blue test in grading milk, B., 425.

Hastings, J. D., effect of conditions of drying on ageing properties of sheet rubber. I., B., 289.

and Sekar, K. C. materials, B., 1008. K. C., latex-straining

Hastings, S. II., effect of lucerne and farm manure on yields of irrigated crops in the great plains, B., 71. Irrigated crop the great plains, B., 71. rotations in western Nebraska, 1912-1934, B., 852.

Haswell, A. B., cleaning of [dust-laden] gas, (P.), B., 674.

Haswell, C. H., use of bitumen for stabilising of powders, with particular reference to soils, B., 696.

Hata, C. See Kafuku, K. Hata, K., and Kubota, B., gases produced by thermal decomposition of nitrocellulose X-ray films, B., 1020.

Hata, S., uranium-rich xenotime from Yu, Japan, A., 585.

Hatada, S., silver-palladium dental alloys, B., 326.

Hatakeyama, T., new experimental hyperlipæmia in rabbits; genesis of venesection lipæmia, A., 1008. See also Katsura, S.

Hatakoshi, Y., nutritional investigation of the porgy. IV. Fractionation of porgy meat, A., 368.

Hatano, T., effect of feeding vegetable protein on copulation and fertilisation in the fowl, A., 103.

Hatch, F. A., the microscope in the brewery, B., 566. Hatch, M. B. See Robinson, R. H.

Hatch, T., and Moke, C. B., mineralogical composition of air-borne foundry dust,

Hatchel, F. See Dozois, K. P.

Hatcher, R. A. See Kwit, N. T. Hatcher, W. H., and Mason, C. T., conductivity of alkali-water-acctone solutions [at 0°], A., 1206.

See also Steacie, E. W. R.

Hatfield, A. E., dry cleaning [of textile materials. containing water-soluble stains], (P.), B., 99.

Hatfield, H. S., method of investigating the Hall effect, A., 415.

Hatfield, J. E., and Harner, H. R., effect of certain impurities in the forming acid on plate-forming time, B., 506.

See also Bingham, E. C., and Brown, O. W.

Hatfield, W. H., progress in corrosion- and heat-resisting steels, B., 322. Intercrystalline corrosion phenomenon observed in chromium-nickel corrosionresisting steels, B., 548. Work of the Heterogeneity of Steel Ingots Committee, B., 742. Heat-, rust-, and acid-resisting steels, B., 743.

See also Burton, H. H. Hathaway, I. L., and Davis, H. P., vitamin-A content of Holstein and Jersey cream,

B., 426.

Hathaway, M. L., and Lobb, D. E., provitamin-D of heat-treated cholesterol, A., 530.

Hatoyama, M., and Kimura, M., aftereffects produced on metallic surfaces by cathode-ray bombardment or by lowpressure gas discharges, A., 1170.

Hatschek, E., bound water in gelatin gel,

Hatt, H. H., Pilgrim, A., and Hurran, W. J., preparation of diaryl a-diketones, A., 336.

Hatta, A. See Murakami, T.

Hatta, S., and Baba, A., liquid-side resistance against gas absorption by a liquid drop; theoretical; experimental, A., 26. Hattori, H. See Sakamoto, M.

Hattori, K., anhidrotic action of agaric acid, A., 1148.

Hattori, Y., and Haselbe, T., substance in fish meat which gives formaldchyde-like reactions. II. Squid (Loligo bleekeri, Keferstein) from Hokkaido, A., 96.

Haucke, W. Sec Brauer, G., and Zintl, E. Haufe, W., importance of a stepped hardening process for heat treatment of diecasting and extrusion tools, B., 1098.

Haugaard, G., and Lundsteen, E., determination of $p_{\rm H}$ of blood with the glass electrode, A., 876.

Hauge, C. W. See Kobe, K. A.

Hauge, S. M. See Hilton, J. H., and Wilbur, $J.\,\,W$

Haulio, P. See Kauko, Y.

Hauman, E. L., and Exolon Co., corundum product, (P.), B., 234. Bonded article, (P.), B., 234.

Haumann, W., and Weber, H. H., the myogen volume in relation to volume of the muscle fibre, A., 359.

Haun, J. C. See Merrill Co.

Haunz, C. F., metal [lead] oxides, (P.), B., 988.

Haupt, W. See Tschesche, R.

Hanpt-Bautzen, H., rôle of the permanganato number in examination of chemical pulp-mill effluents, B., 302.

Hauptfleisch, K., myriapods as potato posts, B., 386.

Hauptmann, H. Sco Meyer, K. H.

Hauptstein, P., mechanism of the action of sexual (follicular) hormone. III. State of the pituitary, A., 1031.

Haurowitz, F., ionic structure, solubility, and coagulation of proteins, A., 426. and Klemm, W., susceptibility of com-

plex porphyrin-nickel salts, A., 213. and Kraus, F., chemistry of immunity reactions. IV. Distribution of chemically distinguished antigens in the organism of normal and sensitised animals, A., 498.

and Marx, F., solubility and flocculation of proteins and other lyophilic colloids.

I., A., 1462.

Haurwitz, (Miss) E. S. See Morse, P. M. Haury, F., velocity of flow of stock from the high-pressure projection slice of an imitation parchment machine, B., 784.

Haury, V. G. See Hirschfelder, A. D. Hausam, W., "tick marks" on calfskins and goatskins, B., 70.

[with Liebscher, E.], new sheepskin

leather defects caused by chromogenic micro-organisms, B., 1222. Hauschild, F., influence of oxidation-

reduction dyes on conditions of disturbed respiration. I. Thionine and methamoglobin[-forming] poisons, A., 1293. Highly-active constituent of the bark of Piscidiæ erythrinæ, A., 1435. Activo fish poison from the bark of Piscidia erythrina, A., 1572.

Hauschild, W., constituents of maté, B., 393.

Hausen, H., rectification of ternary mixtures, especially oxygen-nitrogen-argon mixtures, A., 558. Hausen, S. von, effect of vitamin-C on

growth of plants, A., 391.

See also Virtanen, A. I.

Hauser, C. R., and Jordan, E., removal of hydrogen and acid radicals from organic compounds by bases. II. Removal of acctio acid from acetylaldoximes by alkalis, A., 332. Reactions of aldoxime derivatives with bases. III. Reactions of geometrically isomeric acetyl-3:4-methylenedioxybenzaldoximes with amines. A., 1253. Use of amines for distinguishing geometrically isomeric aldoximes and their acyl derivatives, A., 1379.

Jordan, E., and O'Connor, R., reactions of aldoxime derivatives with bases. II. Reactions of carbethoxy-a-benzaldoximes with sodium hydroxide, A.,

332.

See also Jordan, E. Hauser, E. A., and Reed, C. E., rheopoxy in bontonite, A., 1337.

Hauser, F., agglomerate insulating material for industrial purposes and in particular for the building trade, (P.), B., 1155.

Hausheer, R. R., low-frequency induction furnace, (P.), B., 282.

Hausmann, H., dyeing fast-to-light shades on juto yarn, B., 98.

Hauss, W. Sco Matthes, K. Hausser, I. Sce Kuhn, R.

Hauteville, P. See Hazard, R. Hautet, A., K radiation of crystallised boron, A., 1041.

Hauttmann, A. Sce Paschke, M.

Hauwaert, M. van, influence of antiseptics on amylolytic actions, A., 1296.

Havas, E. See Du Pont de Nemours & Co., E. I.

Havas, L., ascorbic acid (vitamin-C) and phytocarcinomata, A., 257. and Gál, I., divergent physiological

offects of synthetic and "natural' ascorbic acids, A., 1567.

Havemann, R., catapheresis chamber for measurement of the cataphoretic migration velocity of microscopic particles, A., 47.

See also Ettisch, G., and Groscurth, G. Havenhand, D. See Hoar, T. P.

Hawaiian Canneries Co., Ltd. See Taylor, R. B.

Hawes, C. C., determination of silica in iron ores, B., 792.

Hawke, C. E. See Benner, R. C. Hawker, L. E., Fusarium bulb-rot of narcissus, B., 247.

Hawkins, F. J., means for treating charges of internal-combustion engines, (P.), B., 1190.

Hawkins, F. P., and Haynes Stellite Co., hard facing [of tool steels], (P.), B.,

Hawkins, J. A., and Shilling, C. W., nitrogen solubility in blood at increased air pressures, A., 494. Helium solubility in blood at increased pressures, A., 747.

Hawkins, K. S. See Noller, C. R.

Hawkins, W. L. See Blatt, A. H. Hawkinson, A. T. See Du Pont de Nemours & Co., E. I.

Hawley, C. G., and Centrifix Corp., scrubber, B., 352. Centrifugal separator, (P.), B., 352.

Hawley, C. W. See Du Pont de Nemours & Co., E. I.

Hawley, E. E., Stephens, D. J., and Anderson, G_{ij} excretion of vitamin-C in normal individuals following a comparable quantitative administration in the form of orange juice, ascorbic acid by mouth and ascorbic acid intravenously, A., 1567.

See also Stephens, D.J.

Hawley, J. B. See Sloan, E. C. Haworth, L. J., energy distribution of secondary electrons from niobium, A., 1170.

Haworth, R. D., chemical nature of [sulphite-pulp] pitch, B., 784.

and Kelly, Il'., constituents of natural phenolic resins. VI. Synthesis of compounds related to cubobinolide (hinokinin). VII. Arctigenin, A., 985, 1108. Constitution of cubebin, A., 1517.

Kelly, W., and Richardson, T., constituents of natural phenolic resins. Synthesis of dl-matairesinol dimethyl ether and dl-cubebinolide, A., 985.

and Richardson, T., constituents of natural phenolic resins. IV. Synthesis of dehydroanhydropicropodophyllin, A., 610.

Richardson, T., and Sheldrick, G., constituents of natural phenolic resins. III. Synthesis of dehydro-" sulphiteliquors lactone" dimethyl ether and structure of podophyllotoxin, A., 80. See also Goodall, G. D.

Haworth, W.N., Hirst, E.L., Jones, J. K. N., and Smith, F., ascorbic acid and its analogues, (P.), B., 1017.

Haworth, W. N., Raistrick, H., and Stacey, M., polysaccharides synthesised micro-organisms. II. Molecular structure of varianose produced from glucose by Penicillium varians, G. Smith, A., 193.

Securities Corporation. Haworth Laise, C. A.

Hawthorne, J. R., and Robinson, Robert, synthesis of substances related to sterols. XIII. Hydrocyclopentanophenanthrene derivatives, A., 989.

Hax, L. See Endell, K. Haxel, O., proton spectra of magnesium, silicon, and sulphur on bombardment

with fast a-particles, A., 132. Hay, J. L., and Tideswell, F. V., treatment of dust on travelling-roads [in collieries], B., 235.

Hay, R., solution of metals in potassium eyanide solution, A., 573. Basic open-

hearth process, B., 22.

Hayashi, \hat{K} ., simultaneous change in chemical composition of sea-water and Mytilus crassitesta, Lischke, influenced by season, A., 183. Spectrographic investigations of the blue pigments of the benzopyrylium type. V. Relationships between the absorption of light and hydroxyl or sugar substitution in the 2-phenylbenzopyrylium pigments, A., 1263. Anthocyanin of the blue blossoms of Hyacinthus orientalis, A., 1307. Colouring matter of the corolla of Rhododendron obtusum f. hinode. I. Isolation of quercetin, A., 1435.

Hayashi, M., Turuoka, S., Morikawa, I., and Namikawa, H., derivatives of

benzoylbenzoic acids, A., 845. Hayashi, Y. See Maki, T. Haycock, M., microscopic character of pitchblende ore from Beaver-lodge and Hottah lakes, N.W.T., Canada, A., 185. Haydak, M. H., brood rearing by honey

bees confined to a pure carbohydrate diet, B., 618.

Hayden, H. See Woodruff, S. Hayden, O. See Scholz, H. A.

Hayek, E., polarisation effects in thallous fluoride, A., 20. Behaviour of silver fluoride in complex formation, A., 798. Crystallisation and loss of water from copper hydroxide, A., 809.

Hayes, C. I., and Field, H. C., multiple furnace, (P.), B., 223.

Hayes, D. See Cellulose Acetate Silk Co. Hayes, II., laboratory control of protective treatment of steel pipe lines by the Bureau of Water Works and Supply of Los Angeles, B., 1099.

Hayes, J. See Bolton & Sons, Ltd., T. Hayes, J. H. See Ranney, L. Hayes, T. W. See Fuller, L.

Hayes-Gratze, E. V., processing, sizing, lubricating, etc., of all kinds of artificial fibres either before or after spinning or weaving, (P.), B., 689.

Hayesi, T., fine structure of the X-ray Kabsorption spectrum of nickel, A., 1169. Haylett, R. E., and Union Oil Co. of California, lubricating oil, (P.), B., 87.

See also Wilson, R. E.

Hayman, D. F., handling and weighing absorption tubes in micro-determinations of carbon and hydrogen, A., 1397.

Haynes, F. B. See Beams, J. W.Haynes Stellite Co. See Hawkins, F. P., Wissler, W. A., and Woods, G. W. Haynn, R., dyeing of half-wool materials

with immedial [snlphur] dyes, B., 188.

ators, (P.), B., 845. Hays, E. E., Hart, F. W., and Gustavson, R. G., micro-determination of b.p. of

liquids at different pressures, A., 1083.

Hays, C. C., sowage treatment, (P.), B., 78.

Hays, C. E., colour and shade compar-

Hayto, Z. See Loskiewicz, L.

Hayward, J. W., Bohstedt, G., and Fargo, J. M., soya-bean oil meals prepared at different temperatures as feed for pigs, B., 427.

Hayward, S. J. See Loeb, L.

Haywood, G., and Industrial Chem. Sales Co., calcium sulphite and paper containing same, (P.), B., 319.

Haywood, R. W., jun., congulating water of the Delaware River at Easton, Ponn., B., 126.

Hazard, R., sparteine, an antagonist of yohimbino in adronalino hyperglyca-mia, A., 642. Action of calcium ions on hypertension and hyperglycamia due to potassium ions, A., 757.

and Hauteville, P., unsuccessful attempts to treat and prevent eyanide poisoning

by dinitrophenol, A., 1149.

and Lardé, R., comparison of toxicity and general effects of natural, dl-, and l-eamphor on the rat, A., 1295. Toxicity and action on guinea-pigs of synthetic l-camphor, A., 1414.

Hazel, H. H. See Rotter, G. Hazel, W. M. See Lamar, M. O.

Hazell, E., and United States Rubber Co., rubber-fabric material, (P.), B., 100.

Hazlehurst, A. N., [plates for] electric secondary batteries, (P.), B., 66.

Hazlehurst, T. H., jun., Martin, H. C., and Brewer, L., creeping of saturated salt solutions, A., 793.

Hazlet, S. E. See Raiford, L. C.

Hazmburg, R. S. von. See Clark, J. d'A. Head, R. E., physical characteristics of gold lost in tailings, B., 502.

Crawford, A. L., Thackwell, F. E., and Burgener, G., detailed statistical microscopical analyses of ore and mill products of the Utah Copper Co., B., 151.

Crawford, A. L., Thackwell, F. E., and Christensen, A. L., statistical microscopical study of ores and mill products from the Anyox plant of the Granby Consolidated Mining, Smelting, & Power Co., Ltd., Anyox, British Columbia, B., 324.

Headington, C. E. See Kurtz, S. S., jun. Headley, W. N., Siegel, A., and Krebs Pigment & Color Corp., organic colouring materials comprising azocompounds and natural gums and balsams, as substratum, (P.), B., 1007. Organic colouring materials comprising azo-compounds, azo-lakes, and pigments, (P.), B., 1007.

See also Allen, E. R. Healea, (Miss) M., and Chaffee, E. L., secondary electron emission from a hot nickel target due to bombardment by hydrogen ions, A., 1041.

Healey, U.J. See Dux Chem. Solutions Co. Health Products Corporation, vitamin concentrates [from oils and fats], (P.), B., 285*.

Heap, W. See Imperial Chem. Industries. Heaps, C. W., discontinuities of magnetoresistance, A., 415. Magnetisation of nickel under compressivo stresses and production of magnetic discontinuities, A., 1056.

Hearman, J., Levy, B. F. G., and Roach, W. A., tree injection, B., 898.

Hearn, G. See Lambert, D. J.

Hearne, E. M., induced chiasma formation in somatic cells by a carcinogenic hydrocarbon [methylcholanthrene], A., 1406.

Hearne, G. Sco Bataafsche Petroleum Maats.

Heath, A., pottery plaster, B., 885.

Heath, A. R. N., and Tapp, T. C., electro-

plating, (P.), B., 1103. Heath, C. W., and Fullerton, H. W., rate of absorption of iodine and glycine from the gastro-intestinal tract in health and disease, A., 754. Heath, G. M. See Rowe, F. M. Heath, S. B. See Dow Chem. Co.

Heating Unit Corporation. See Boyles,

C. H.Heatley, N. G., distribution of glycogen in the regions of the amphibian gastrula;

micro-determination of glycogen, A., 95. Heaven, H. S. See Lambert, B.

Hebb, C. O., relation between blood-sugar and exocrine pancreatic function, A., 750.

Hebb, M. H., Λ-type doubling in ³II states of diatomic molecules intermediate between Hund's cases a and b, A., 655.

Hebbs, L., wood pulp for the rayon industries, B., 1035.

Heberlein, C. Sco Heberlein & Co., Akt.-Ges.

Heberlein, M. See Hermsdorf, R. P. E. Heberlein & Co., Akt.-Ges., Heberlein, G., and Weiss, Ernst, figured effects on cellulose-containing surfaces, (P.), B., 144. Patterned effects on textiles, textiles, (P.), B., 984. Effects on textile webs, (P.), B., 1205.

Heberling, R. See Wolf, K. Hebler, W. O., and Engelhard, Inc., C., gas-analysis apparatus, (P.), B., 579.

Hechenbleikner, I., and Chem. Construction Corp., apparatus for treatment of a gas by a liquid, (P.), B., 257. Bringing a liquid and gas in intimate contact or mixture, (P.), B., 257. Storage of oxides of nitrogen, (P.), B., 275. Concentrating sulphuric acid and sludge acid, (P.), B., 452. Phosphoric acid, (P.), B., 493. Treatment of sulphur-bearing ores, (P.), B., 552. Concentrated sulphuric acid or oleum, (P.), B., 641. Reclaiming of pickling solution, (P.), B., 789. Nitric acid, (P.), B., 833. Converter [for manufacture of sulphur trioxide], (P.), B., 988.

Oliver, T. C., Spangler, S. F., and Chem. Construction Corp., sulphuric acid from hydrogen sulphide, (P.), B., 833. See also Morton, A. A.

Hecht, F., and Krafft-Ebing, H., gravimetric separation of quadri- and sexavalent uranium. I., A., 1480.

and Kroupa, E., at. wt. of radiogenic lead, A., 540. Significance of quantitative microanalyses of radioactive minerals for measurement of geological time, A., 1226.

and Reissner, R., determining bismuth as basic carbonate, A., 45. Determination of bismuth with [a-]naphtho-quinoline, A., 45. Determination of bismuth with 8-hydroxyquinoline, A., 180.

Hecht, G., esmodil, a new vagus-stimulant, A., 1416. Distribution of atebrin in the organism, A., 1552.

Hecht, II., Kabus softness tester [for ceramic materials], B., 790.

Hecht, I. R. See Kopelevitsch, G. V. Hecht, O. See Nowack Akt.-Ges., A.

Hechter, O. Sec Freed, S. C. Heck, A. F., biological effect of available phosphorus in Hawaiian soils, B., 513.

Availability and fixation of phosphorus in Hawaiian soils, B., 658.

Heck, L. L. See Gilman, H.

Hecke, G. B., development of small pictures by a new factorial system, B., 717.

Heckel, G. P. See Allen, W. M.

Heckel, H., and Emery Industries, Inc., liquid coating composition, (P.), B.,

Hecker, M. Sec Schmidt, Erich.

Heckert, L. C., and Röhm & Haas Co., insecticide, (P.), B., 1224. Heckert, W. W., Patterson, G. D., and

Krebs Pigment & Color Corp., manufacture of calcium sulphate, (P.), B., 1092.

Hecksteden, W., chemical detection of pregnancy, A., 626.

See also Knoop, F.

Hector, L. G., and Schultz, H. L., measurement of dielectric constant of air at radio-frequencies, A., 1182.

Heden, S., and Holmberg, B., lignin. XII. Action of hydrogen sulphite solutions on aromatic alcohols, A., 1504.

Hedenburg, O. F. See Grasselli Chem. Co. Hedger, R. E., and Terrey, H., cadmium suboxides and subhalides, A., 1475.

Hedges, E.S. See Macnaughtan, D.J.Hediger, E., and Globar Corp., glaze for non-metallic resistors, (P.), B., 409. Electric furnace, (P.), B., 699.

Hedin, R. See Hedvall, J. A. Hedley, E. P., chemical composition of

sucrose-free bagasse, B., 710.

Hedry, M. Sce Török, G. Hedvall, J. A. [with Fridén, E., Lindstrand, T., and Svenander, E.], effect of irradiation on adsorptive power of solids. I., A., 792.

and Eldh, A., reactivity of red and yellow lead oxide with silica, A., 439. and Hedin, R., ferromagnetic transformation and catalytic activity. Hydrogenation of carbon monoxide and ethylene over nickel, and formation of carbon dioxido from carbon monoxide over the Heusler alloy MnAlCu₂, A., 169.

Hée, (Mme.) A. See Rothé, E. Heenan, J. N. D., tubular heat-exchange apparatus, particularly economisers, (P.), B., 479.

Heer, J. See Fichter, F. Heeramancek, V. R. See Shah, R. C.

Heermann, P., examination of oxycellulose,

Heertjes, P. M., insoluble dyes, B., 266. Coal-tar dyes for use in the paint

industry, B., 1055. See also Harberts, (Mile:) C. L.

Hefter, J. M., and Glinka-Tschernorutzkaja, E. L., influence of acid- or baseforming diet on metabolism of rabbits at work and rest, A., 628.

Hegan, H. Sec Shearer, A. B. Hegan, H. J. See Courtaulds, Ltd.

Hegde, B. J., and Rao, B. S., essential oil from rhizomes of Cyperus rotundus, Linn., B., 44. See also Bradfield, A. E.

Hegedüs, I. See Kocsis, E. A. Hegemann, F., origin of quartz in the Bavarian Pfahl, A., 1227. Heginbotham, J. H. See Brit.-Geco Eng. Co., Ltd.

Hegler, C., determination of alcohol in blood by Widmark's method, A., 622. Hegmann, W., metallic dust, (P.), B., 458.

Heiberg, O. E. See Berg, O.

Heid, J. B. Sco Universal Oil Products Co. Heid, T. Sco Wetzel, R. Heide, C. von der, and Zeisset, W., detec-

tion of sorbitol in sweet wines, B., 167.

Heide, F., new crystal-bearing glass from Macusani (Peru), A., 699.

Heidelberger, M., and Kendall, F. E., precipitin reaction between tpye III pneumococcus polysaccharide and homologous antibody. II. Conditions for quantitative precipitation of antibody in horso sera. III. Theory of the reaction mechanism, A., 94.

Pedersen, K. O., and Tiselius, A., ultracentrifugal and electrophoretic studies

on antibodies, A., 1137.

Heidenreich, F., polarisation of Raman radiation, A., 10.

See also Hanle, IV.

Heidermanns, C., and Wurmbach, H., histochemical detection of phosphate conglomerates in tissue, A., 535.

Heidt, L.J., ultra-violet absorption spectra of thyroxine, thyronine, tyrosine, diiodotyrosine, and thyroglobulin, A., 1249.

and Forbes, G.S., photolytic and thermal decomposition products of azomethane; thermal reaction rates in quartz at 260-290°, A., 195.

Heidtkamp, G. See Endell, K.

Heiduschka, A., phytochemical investigations of paper-mulberry (Broussonctia papyrifera) bark, B., 829.

and Zwergal, A., unsaturated fatty acids of hemp oil, B., 1003.

Heiduschka, R., and Steulmann, G., determination of alcohol in blood and urine, A., 1009.

Heierle, E. Soo Bernegg, A. S. von. Heierman, J. H. Sco Held, E. F. M.

van der. Heigener, II., utilisation of amino-acids as common sources of carbon and nitrogen by soil bacteria: organisms decompos-

ing betaine and valine, A., 383. Heijkenskjöld, G. O. W., albuminoid [protein] material [from atmospheric nitrogen], (P.), B., 470.

Heike, W., Schramm, J., and Vaupel, O., system nickel-zinc, A., 1060.

Heikel, A., self-condensation of acetylacetone, A., 205.

See also Toivonen, N. J.

Heiken, C., basic cupola-furnace operation, B., 195.

Heil, J. F. See Jager, W. A. den H.

Heil, O. Sce Arsenjeva-Heil, A. Heilbron, A. See Casciani, F.

Heilbron, I. M., Heslop, R. N., and Irving, F., direct synthesis of 2'-halogenomesobenzanthrones, A., 988.

Hey, D. H., and Lowe, A., styrylpyrylium salts. XVII. Colour phenomena associated with 4-phenylbenzo-βnaphthaspiropyrans and 4-phenyl-aßdinaphthaspiropyrans, A., 1386.

Hey, D. H., and Lythgoe, B., pyrone series. III. Influence of the phenyl group in the Kostanecki reaction, A., 611.

Jones, Richard N., Samant, K. M., and Spring, F. S., sterol group. XXIV. Constitution of calciferol, A., 1105.

Heilbron, I. M., Jones, W. E., Lowe, A., and Wright, H. R., synthesis of vitamin-A. II., A., 983.

and Lythgoe, B., chemistry of the algæ. II. Carotenoid pigments of Oscillatoria rubrescens, A., 1369.

Lythgoe, B., and Phipers, R. F., new

type of plant lipochrome, A., 259.
See also Bann, B., Barr, T., Beynon,
J. H., Coffey, D. H., Gillam, A. E.,
and Imperial Chem. Industries.

Heiligenstaedt, W., beat transfer in gasheated hearth furnaces, B., 1183.

Heiling, A., and Senpin, L., action of ozone on fungal and bacterial growth in fruit and vegetable cold-rooms, B., 1124.

Heilman, R. H., heat insulation in air conditioning, B., 815. Emissivities of

refractory materials, B., 835. Heim, J. W., and Leigh, O. C., carbon dioxide content and combining power and $p_{\rm H}$ of cervical lymph, A., 227.

Thomson, R. S., and Bartter, F. C.,

lymph-sugar, A., 501.

Heim, S. See Schou, S. A.

Heiman, V. See Norris, L. C.

Heimann, P. See Meyer, André.

Heimer, A., band spectra of NiH and Coll, A., 920. Band spectrum of FeH, A.,

1047. and Hulthen, E., proof of existence of

the odd cadmium isotopes by band spectroscopy, A., 772.

Heimer, T., isotope effect for gold hydride (AuH/AuD), A., 267. Band spectrum of MnH, A., 1177. Torm scheme for gold deuteride, A., 1177.

Heimhold, H. Sco Bergmann, E.

Heimrod, A. A. See Internat. Precipitation Co.

Hein, F., [magnetie behaviour of chromium-phenyl compounds], A., 786.

Markovitsch-Burawoy, I., and Schwedler, H., molybdenum-blue, A., 302. and Regler, H., optically active silverhydroxyquinoline complexes, A., 1123. and Stumm, O., autoxidation of chromite solutions, A., 1471.

Hein, W. O. Sco Lapin, L. N. Heindl, R. A., sagger clays and sagger bodies, B., 234.

and Pendergast, W. L., bonding strength of cold-setting refractory cements, B., 643.

Heine, H. Sco Maurer, E.

Heine & Co., Akt.-Ges., scent mixtures, (P.), B., 908. Perfumes or perfume mixtures, (P.), B., 1130.

Heinemann, K. See Lüder, E.

Heinemann, Karl, and Amer. Lurgi Corp. apparatus for separating sulphurous acid from sulphite waste liquor, (P.), B., 366.

Heinicke, H. M. E. See Western Electric Co.

Heiningen, J. van, explosion limits. I. Influence of argon, nitrogen, helium, and carbon dioxide on explosion limits of hydrogen, carbon menoxide, methane, and butane in air. II. Occurrence of explosion limits, their dependence on the pressure, and the influence of dilution with an inert gas, A., 431.

Heinisch, E. See Fink, H.

Heinrich, A., plasticity of skeletal muscle before and during deep narcosis, A., 1552. Heinrich, E. See Pfeiffer, P.

Heinrich, F., and Petzold, F., use of overhead heating in analysis, A., 445. See also Schwarz. R.

Heinrich, R., and Siemens-Schuckertwerke A.-G., separation of [oil-water] emulsions by electrical action, (P.), B., 283.

Sco also Internat. Precipitation Co.

Heinrichs, P. See Darapsky, A. Heinsen, H. A., isolation of dl-arginine from kidney autolysate, A., 749.

and Wolf, H. J., tyramine as a pressor substance in pallid hypertension, A., 495. Action of tyramine in increasing blood pressure in pallid hypertension, A., 1415.

See also Wolf, H.J.

Heintz, E., infra-red spectra of aminoacids and polypeptides, A., 268. Heintz & Kaufman, Ltd. See Eitel, W. W.,

and McCullough, J.

Heinz, A., and Kottas, H., electrical ultramicrometer for measuring thermal expansion of ceramic materials, B., 79Ô.

Heinz, H.J. See Leithe, W.

Heinze, R., polymerisation benzine, B., 435. Increasing value of water-gas by means of carburetting oil, and evaluation of this oil, B., 726.

and Marder, M., relation between knocking power of light fuels and their physical properties, B., 133. Diesel engine fuels, B., 966.

Heise, F. H., and Martin, G. J., ascorbic acid metabolism in tuberculosis, A., 1542.

Heise, G. W., Schumacher, E. A., and Nat. Carbon Co., gas electrode for primary batteries, (P.), B., 748.

See also Schumacher, E. A.

Heisenberg, W., and Euler, H., consequences of Dirac's positron theory, A., 543.

Heiser, F. See Schnelle, F. Heiser, H. W. See Aluminum Co. of America.

Heisig, G. B., action of radon on polymethylenes: cyclopentane and cyclopentene, A., 38. Low-temperature

thermostat, A., 581. and Davis, H. M., effect of oxygen on reaction between bromine and butadiene, A., 1090.

Heisig, H. See Voss, W. Heisig, T. C. Sco Texas Co.

R., freezing of food-stuffs, B.,

Heist, C. H., [cyclone] cleaner for gaseous

fluids, (P.), B., 578. Heitler, W., and Teller, E., time effects in the magnetic cooling method. I., A., 1191.

See also Bhabha, H.J., and Fröhlich, H.Heitzmann, P. See Lespieau, R. Heiwinkel, H. See Euler, H. von.

Helberger, H., behaviour of lavulyl chloride and acetyl-kevulie acid in the Friedel-Crafts reaction, A., 822.

Held, E. Sco Guyénot, E.
Held, E. F. M. van der, and Heierman,
J. H., absolute transition probability

of potassium, A., 261.

Held, N. A., and Chainski, I. A., determination of heats of sorption from solutions at crystal surfaces, A., 792. Adsorption of organic substances at crystal surfaces. IV. Adsorption of sodium oleate and noneato by cinnabar, A.,

See also Samochvalov, K. N. Held, W. J. See under Jahn-Held, W. Helde, M. See Ising, G. Heldman, M. J. See Ramsey, J. B. Helferich, B., ditriphenylmethylfructose, A., 1492.

and Lampert, U., omulsin. XXIV. Glucoside syntheses with emulsin, A.,

and Streeck, R., β -d-fructosides of phenols, A., 969.

and Vorsatz, F., emulsin. XXV. Coffee emulsin. XXVI. Action of osmium tetroxide on sweet almond-emulsin, A., 243, 894. β -d-Glucosides of caffeic and ferulic acids, A., 1235.

and Weber, Edgar, cmulsin. XXVII. Synthesis of the β -d-cellobioside and B-d-maltoside of vanillin and the action of almond emulsin on these substances, A., 969.

Helff, O. M., amphibian metamorphosis. X_{r} p_{H} of the blood of anuran larvæ during involution, A., 94.

Helft, E. Seo Goll, G.

Helgeson, J., and Shaw, E. H., jun., esterification of glycerol with chloroacetic acid and trichloroacetic acid, A., 1229.

Hella, R. P. See Hoffman, W. F., and Pascoe, T. A.

Hellebrand, R. Seo Ditz, H.

Hellebrandt, F. A., relation between motor and secretory functions of the human fasting stomach, A., 233.

Brogdon, E., and Hoopes, S. L., effect of acute anoxemia on hunger, digestive contractions, and secretion of hydro-chloric acid in man, A., 230. Disappearance of digestive inhibition with the repetition of exercise, A., 238. Heller, A. See Grube, G.

Heller, Arnold, ratio of iron soluble in cold water to total iron in the leaves of healthy and injured plants, A., 1035.

Heller, \tilde{G} . [with Barthel, R.], indigotin; cis-indigotin, A., 615.

Heller, J., phosphorus compounds in the nymph and butterfly of Deilephilia cuphorbiæ, A., 498.

Heller, J. K., and Utility Development Co., gas-mixing apparatus, (P.), B., 963.

Heller, K., Kuhla, G., Machek, F. [with Köhler, H., Veit, A., and Weilguny, O.], determination of traces of heavy metals in mineral waters, B., 46.

and Machek, F., [detection and determination of] cadmium, A., 579.

Peh, K., and Pindur, J., intake of casium by potato plants, A., 256.

Heller, O., activo carbon, (P.), B., 628. Heller, R. C. Sco Soskin, S.

Heller, V. G., and Haddad, M., paths of exerction and mineral balance in animals drinking saline and alkaline waters, A., 625.

See also Darlow, A. E.

Heller, W., distance between colloidal particles in iridescent films of certain iron oxide sols, A., 27. Mechanism and kinetics of thixotropic solidification, A., 426. Dynamical principle of thixotropic solidification and its application, A., 795.

Kratky, O., and Nowotny, H., constitution of ferric oxide sols., A., 562.

and Polanyi, M., reactions between sodium vapour and volatile polyhalides; velocities and luminescences, A., 568.

Hellerman, L., and Perkins, M. E., activation of enzymes. III. Rôle of metal ions in activation of arginase; hydrolysis of arginine induced by certain metal ions with urease, A., 244.

Hellinckx, L., Congo copal, B., 380.Helling, W., doformability of aluminium in relation to purity, B., 1159.

See also Geier, C.

Hellmann, H., quantum-mechanical calculation of polarisability and dispersive powers, A., 140. Approximation method in problem of many electrons. П., А., 1448.

and Kassatotschkin, W., metallio binding according to the combined approxim-

ation procedure, A., 781.

and Syrkin, J. K., abnormally small steric factors in chemical kinetics, A., 164.

Hellmers, H. D., and West End Chem. Co., purification of sodium carbonate, (P.), B., 318.

Hellmers, H. T., Donnald, R. H., and Akro Agate Co., variegated glass articles,

(P.), B., 990.

Hellström, H., extinction of fluorescence of methylene-blue by ferrous iron, A., 270. Displacement of oxidation-reduction potential on illumination of methylene-blue solutions containing iron, A., 566.

See also Adler, E., and Euler, H. von.

Hellström, N., kinetics of sulphonium compounds. I., A., 1469.
and Lauritzson, T., tert.-butylthiolacetic acid and related compounds, A., 1231. Alkylthiolacet-anilides, -p-toluidides, and the corresponding thionyl compounds, A., 1242.
Hellwage, H. Seo Hilpert, R. S.
Hellwage, K. H., band spectra of CaF and

CaCl, A., 920.

Hellwig, A. P., chlorine sterilising compounds. I. Relationship between $p_{\rm H}$ and oxidation potentials, B., 430.

Hellwig, C. A., experimental goitre: functional, chemical, and histological studies, A., 365.

Helm, E., non-biological turbidities in beers, B., 901.

and Richardt, O. C., measurement of

foam [in beer], B., 518. Helmer, O. M. See Fouts, P. J.

Helmer, V. O., viscosity of tars, B., 355.

Helmert, E. See Maschmann, E.

Helmholz, L., crystal structure of hexagonal silver iodide, A., 16. Crystal structure of silver phosphate, A., 783. Helmholz, W., influence of mineral fertilisers

on keeping quality, flavour, and suitability for preserving of vegetables and potatoes, B., 852.

Helmke, W. A. C., treatment of coffee beans with solvents for reducing caffeine content, (P.), B., 395.

Helwich, J. See Jablezyński, K. Helz, G. E. See Bosworth, A. W.

Hemingway, A., elimination of xylose, creatinine, and urea by perfused mammalian kidney, A., 502.

Scott, F. H., and Wright, H. N., kinetics of elimination of the dye water-blue from dog plasma after intravenous injection, A., 221.

Hemmeler, A., use of formaldehyde for the elimination of ammonia and of ammonium salts in qualitative and quantitative analysis. II. Application to detection of metals of the sixth group. III. Decomposition of ammoniacal complexes by formaldehyde; determination of metals in solutions containing ammonia or ammonium salts

by alkali hydroxides or carbonates,

A., 303, 1220.

Hemmeler, A., gravimetric determination of copper by hexamothylenetetramine, A., 1221.

Hemmi, II. See Meyer, K. II.

Hemming, C. B. See Du Pont de Nemours & Co., E. I.

Hempel, M., and Plock, C. H., endurance limit and damping capacity of plain steels as functions of the carbon content and heat treatment, B., 1098. Hemphill, J. W., [heat-]insulation specific-

ations for the paper industry, B., 365. Hemphill, M. G. See Harrold, G. C.

Hendee, E. C., rôle of fungi in diet of the common dampwood termite Zootermopsis angusticollis, B., 807.

Henderson, C. N. See Ridenour, G. M. Henderson, C. T., bleaching of pulp, (P.), B., 99. Antisepticisation of water, (P.), B., 174. Buffered bleaching [of pulp], B., 1200.

Henderson, E. P., steigerite, a new vanadium mineral, A., 309.

and Glass, J. J., pyroxmangite, new locality: identity of sobralite and pyroxmangite, A., 1088.

Henderson, H. O. See Landingham, A. II.

Henderson, J. L. See Roadhouse, C. L. Henderson, L. M., and Atlantic Refining Co., hydrocarbon oil treatment, (P.), B., 821.

Ferris, S. W., Cowles, H. C., jun., and Atlantic Refining Co., separation of [hydrocarbon] wax, (P.), B., 86.

Henderson, M. C., two radioactive substances from magnesium after deuteron bombardment, A., 132. Amplifier and recording apparatus for a-particles, high-speed protons and neutrons, A., 306.

Henderson, N. See Burns, C. M. Henderson, V. E., and Smith, A. H. R., anæsthetic effects of furan derivatives, A., 1415.

Henderson, W. J. See Ellis, C. D., and Gray, J. A.

Hendon, H. H., chemical treatment [of sewage] at [Shades Valley], Birmingham, Ala, B., 699.

Hendrey, W. B. See Texas Co. Hendrich, M. W., Semerad, R. W., and Radzinsky, H., sizing material [for stone],

(P.), B., 802. Hendricks, S. В., Jefferson, \mathbf{and} M. E., electron distribution in (NH₄)₂C₂O₄,H₂O and structure of the oxalate group, A., 414.

Wulf, O. R., Hilbert, G. E., and Liddel, U., hydrogen linking formation between hydroxyl groups and nitrogen atoms in organic compounds, A., 1510.

Wulf, O. R., and Liddel, U., "β"-d-glucose 2:3:4:6-tetra-acetate, A., 1492. See also Hilbert, G. E., Hill, W. \hat{L} ., and

Maxwell, L. R.

Hendricks, T. A., carbon ratios in part of Arkansas—Oklahoma coal field, A., 818. Hendricks, W. A. See Fritz, J. C.

Hendrixson, P., use of copper to increase yield of ethyl bromide, A., 52.

Hendry, E. B. See Grieg, E. D. W. Hendrych, F., determination of cardioanaloptic activity by means of the potassium-paralysed Straub frog's heart preparation, A., 1550. Atropinemorphine-ether narcosis, A., 1552. See also Starkenstein, E.

Hene, E., actively adsorptive materials, (P.), B., 542.

Heng, T. K., constitution of some tartaric complexes and their physico-chemical applications. I. Tungsto-, II. Molybdo-, III. Boro-, IV. Alumino-, V. Antimoniotartarie complexes, A., 823.

Heng, Y. K., rotatory power of methyl tartrate: influence of solvent, temperature, and neutral salts, A., 1093. Cuprotartrates, A., 1093.

Hengemühle, W., hardness-testing machines, B., 1183.

Henglein, F. A., plants as sources of raw materials, especially for chemical industries, B., 116.

and Salm, L., preservation of manure by addition of acid, B., 563.

and Schneider, G., esterification of pectin

substances, B., 312.

Hengstenberg, O., and Nitralloy Corp., hardening iron, steel, and cast-iron alloys by nitriding, (P.), B., 239.

Hening, J. C., standardisation of the

Borden flow meter for determining the apparent viscosity of cream, B., 664.

See also Dahlberg, A. C.

Henk, H. J., deterioration of rayon by fireproofing treatments, B., 231. Mordanting [cotton] with antimony tannate, B., 589.

Henke, C. O. See Du Pont de Nemours

& Co., E. I.

Henke, F. See Rnpe, H.

Henke, J., maintenance and improvement of soil fertility by use of pretreated lignite, B., 852.

Henke, L. A., cane molasses as dairy feed

for dairy cows, B., 43.

Henkel, \tilde{E} ., Nehrbas, H. G., and Superheater Co., deconcentration of steam, (P.), B., 960.

Henkel & Co., G.m.b.H., improving wetting and similar properties of aqueous liquids employed in textile, fur, and leather industries, (P.), B., 90. Bleaching and washing agents, etc., (P.), B., 98. Bleaching and disinfectant washing and cleansing agents, (P.), B., 99. Detergents, (P.), B., 99. Higher aliphatic and cycloaliphatic sulphonic acids, (P.), B., 138. Crustless cheese, (P.), B., 169. Highmolecular true sulphonic acids [textile assistants], (P.), B., 182. Cleansing agents, etc., (P.), B., 204. Lacquers, covering and coating compositions, plastic masses, foils, threads, and moulded articles, (P.), B., 206. Cleansing agents [detergents], etc., (P.), B., 285. Cleansing agents in the form of emulsions, (P.), B., 285. Bleaching agents [detergents], etc., (P.), B., 285. Compositions for treatment of surfaces, (P.), B., 335. [Agents for] treatment of textiles and other fibrous materials, (P.), B., 451. Bleaching, washing, and cleansing agents, particularly for use in water containing iron, (P.), B., 461, 590. Bleaching agents, etc., (P.), B., 492. Polyphos-Bleaching phates. (P.), B., 495. Agents for modifying surface tension of [aqueous] liquids, (P.), B., 537. Treatment of fibrous materials with aqueous liquids, (P.), B., 541. Washing of textiles, (P.), B., 831. Stabilisation of colloidal systems, (P.), B., 850. Wetting, washing,

cleansing, emulsifying, dispersing, and

similar capillary active agents, (P.), B.,

974. Agents for modifying surface tension

of liquids [wetting agents], (P.), B.,

976.

Henkel & Co., G.m.b.H., [resinous] condensation products, (P.), B., 1110. Polishing or similar agents for treatment of surfaces, (P.), B., 1216. Condensation products [resins], (P.), B., 1219.

Henkes, R. A. See Meyer, G.

Henle, O., and Maurer, W., potential for light excitation in mercury by collisions with Li+, Na+, K+, Rb+, Cs+, A., 1312.

Henle, W., and Szpingier, G., metabolism of isolated fat-tissue. III. Respiratory quotient and the influence of nutrients

in vitro and in vivo, A., 629.

Henley's Telegraph Works Co., Ltd., W. T., and Dunsheath, P., arrangement for measurement of temperature, (P.), B.,

Hennaut-Roland, (Mme.). See Timmermans, J.

Henne, A. L., and Gen. Motors Corp., fluoration in presence of chlorine as catalyst, (P.), B., 88. Penta- [quinque-] valent antimony compounds, (P.), B., 369. Fluor[in]ation of aliphatic halides, (P.), B., 919.

and Hubbard, D. M., chlorofluoroethanes and chlorofluoroethylenes. III., A., 703.

and Ladd, E. C., ehlorofluoroethanes and chlorofluoroethylenes. II., A., 703.

and Midgley, T., jun., mercuric fluoride, a new fluorinating agent, A., 961. Reactivity and influence of fluorine

in aliphatic compounds, A., 961. and Renoll, M. W., lluoro-derivatives of other and ethylene. IV. and V., A., 961.

See also Midgley, T., jun.

Hennegan, P. M., electroplated [non-metallic] articles, (P.), B., 647.

Hennig, H., micro-analytical determination of oxygen in organic substances, A., 872.

See also Weygand, C.

Hennig, T., photometric determination of degree of sizing [of paper], B., 636. Solid water-soluble aluminium acetate, (P.), B., 1082.

See also Jochem, O.

Henning, C. C., manufacture and properties of Bessemer steel, B., 236.

Henning, F., and Otto, J., comparison of platinum resistance thermometers with the helium gas thermometer in the range 14—90° abs., A., 1190. Vapour pressure curves and triple points in the temperature range 14—90° abs., A., 1331. Platinum resistance thermometer as a secondary temperature standard between

14° and 90° abs., A., 1354. Henning, H. J., and Knote, R., measurement of clastic properties of materials,

(P.), B., 913.

Hennion, G. F., Vogt, R. R., and Nieuw-land, J. A., proposed mechanism for mercury catalysis in acetylene addition reactions, A., 1359.

See also Killian, D. B., Slanina, S. J., and Thorn, S. D.

Henri, M., temperature coefficient of electrical resistance of aluminium, 1159.

Henri, V., electronic state of radicals in polyatomic molecules, A., 1048.

and Angenot, P., relation between ultraviolet absorption spectrum and Raman

spectrum of pyridine, A., 11, 1443. Henrich, L. C. See Hill, F. C., and Wilhelmi, C. M.

Henrici, A., and Grieneisen, H., influence of temperature on methyl iodide absorption spectrum in [quartz] ultraviolet, A., 8.

and Milazzo, G., ellect of temperature on absorption spectrum of ethyl iodide in the quartz ultra-violet, A., 1177.

Henrion, J., dielectric losses in a highfrequency alternating field and molecular dimensions, A., 1051. Applications of dielectric constant measurement, A., 1481. Henriques, V. See Bjerrum, J.

Henriques, V. de F. See Brown, E. M. Henriquez, P. C., degree of wetness and dielectric constant of solid substances, B., 555. Light printing (diazo-typo-

graphy), B., 572.

and Hulst, L. J. N. van der, physical methods in chemistry. IV. Dipole measurement and its application to chemistry, A., 12

See also Böeseken, J. Henry, B. S. See Partansky, A. M. Henry, C. See Flosdorf, E. W. Henry, D. E. See Rentschler, H. C. Henry, F. R., crushing of non-plastics in

dry-pressing, B., 1041.

Henry, G. See Gilard, P. Henry, J., lard, B., 334. Henry, K. M. See Kon, S. K.

Henry, L. A. M. See Henry-Cornet, J.Henry, N. F. M., data on iron-rich hypers-

thenes, A., 185.

Henry, R. A., purification of waste liquors, (P.), B., 718. Apparatus for distribution or apportionment of material in a mobile, fine, or powdery condition, (P.), B., 1135. Apparatus for preparation of a solution or suspension of mobile, fine-grained or powdered materials, (P.), B., 1135.

Henry, T. A., chemotherapy of malaria,

B., 523.

Henry, W. M., and Amer. Steel & Wire Co. of New Jersey, metallurgical furnace, (P.), B., 997.

Henry-Cornet, J., and Henry, L. A. M., absorption spectrum of bilirubin, A., 1048. Hensel, F. R., casting manganese bronze, B., 1157.

Henshaw, D. M. See Holmes & Co., Ltd., W. C.

Hensill, G. S., and Hoskins, W. M., factors concerned in deposit of sprays. I Effects of different concentrations of wetting agents, B., 1116.

Henson, G. C. See Painter, K. D. Henstell, H. H. See Allison, M. J. C.

Henville, D., combined iodine in iodine ointment, B., 251. Sublimation tube for determination of benzoic acid [by [by Monier-Williams' method], B., 440.

Henwood, A., and Garey, R. M., modified technique for Kjeldahl procedure, A., 694. Apparatus for use in chemical

digestions, (P.), B., 351. Henze, H. R. See Rigler, N. E. Henze, M., benzoylation of quinaldine oxide, A., 613, 1123.

Hepburn, G. A. See Ripley, L. B.

Hepburnite Corporation. See Sadtler, S. S. Hephaest Akt.-Ges. für motorische Krafterzeugung. See Graemiger, B. Hepler, J. M. See Mallmann, W. L.

Heraeus Ges.m.b.H., W. C., electrolytic deposits of rhodium, (P.), B., 554. Welding together of tubes and other elements of quartz, hard glass, and other refractory materials, (P.), 643. Articles from refractory В., sinterable materials, (P.), B., 1154.

Heraeus Ges.m.b.H., W. C., dark electrolytic deposits of rhodium, (P.), B., 1163. See also Feussner, O.

Heraeus-Vacuumschmelze Akt.-Ges., casting of metals and alloys, (P.), B., 554. Cobalt-tungsten-chromium alloys, (P.), B., 843. [Metallie] heat-resistant articles for use at high temperatures, (P.), B., 1048.

and Hessenbruch, W., high-speed steel, (P.), B., 329.

and Rohn, W., induction furnaces, (P.), B., 107. Beryllium alloys, (P.), B., 938. See also Rohn, W.

Herbain, M. See Fiessinger, N.

Herber, P., and Research Corp., electrical precipitator, (P.), B., 157.

Herberg, Kielhöfer, and Schrader, vineyard soils of the Moselle. I. Importance of mechanical composition of soils for nutrient supply of the vine. fication of vineyard soils, its influence on growth of vines and choice of fertilisers. III. Root-soluble nutrients in soils and their significance in manuring, B., 421, 850.

Herbert, $J_{\cdot,\cdot}$ disappearance of a cause of anisotropy of glass by annealing, B., 369.

Herbert, R. W. See Harris, T. L. Herbert, T. M. See Fancutt, F.

Herbig-Haarhaus Akt-Ges., [mod alkyd] artificial resins, (P.), B., 1219.

Herbo, H. See Bigwood, E. J.

Herbold, M. See Walton, L. [modified

Herbst, J. See Bunger, H. Herčík, F. See Biscoe, J.

Hercules Glue Co. See Lindstaedt, F. F., and Littooy, J. F.

Hercules Powder Co., ethylcellulose as a pigment-grinding base, B., 751.

and Bennett, J. L., anhydrous ammonia,

(P.), B., 987.

and Borglin, J. N., refining of rosin, (P.) B., 30, 1109. Terpene esters of dicarboxylic acids, (P.), B., 876. Heterocyclic esters of resin acids, (P.), B., 895.

Borglin, J. N., and Bent, L. N., treatment of rosin [to remove oxidised products],

(P.), B., 337.

and Champney, H. H., impregnation of carbonaceous material [with ammonium nitrate for dynamite], (P.), B., 669.

and Crater, W. de C., granulation of explosive compositions, (P.), B., 1021. Smokeless powder, (P.), B., 1237.

and Dörr, E., benzylcellulose, (P.), B., 1146.

and Gilbert, C. B., [cellulose ester] lacquer, enamel, base solution, etc., (P.), B., 652.

and Greider, C. E., cincole, (P.), B., 444. and Humphrey, I. W., synthetic resins, (P.), B., 287. [Nitrocellulose] coating composition, (P.), B., 463. [Resinous] composition [from rosin and maleic

anhydride], (P.), B., 1219. and Littmann, E. R., pinene-maleic anhydride reaction products, (P.), B., 287. [Coating] compositions, (P.), B., 287. Cincole-maleic anhydride reaction products, (P.), B., 287.

and Lorand, E. J., aralkyl ethers of cellulose [benzyl-cellulose], (P.), B.,

Nordenswan, C. J., and Schlaanstine, R. F., nitrated cellulose, (P.), B., 450. and Norton, S. G., dehydration of pine oil, (P.), B., 717.

Hercules Powder Co., and Peterson, E. G., [coating] compositions, (P.), B., 287. Terpene-maleie anhydride reaction products, (P.), B., 287. Synthetic resins, (P.), B., 287. Coating composition [from terpinene-maleic terpinene-maleic anhydride products], (P.), B., 1167.

Peterson, E. G., and Littmann, E. R., a-terpinene-maleic anhydride reaction

products, (P.), B., 287.

and Piccard, J., fuso powder for metal delays, (P.), B., 125.

and Pickett, O. A., igniter powder, (P.), B., 814.

and Rankin, L. P., ozonisation products of terpene alcohols, (P.), B., 585.

and Rummelsburg, A. L., sulphonated terpene products, (P.), B., 876.

Rummelsburg, A. L., and Little, B. H., sulphonated polymerised terpene, (P.), B., 444.

and Shankweiler, F. K., surface coating [for sheet materials], (P.), B., 463.

Shankweiler, F. K., and Gloor, W. E., nitrocellulose gel, (P.), B., 637.

and Speicher, J. K., safety glass, (P.), B., 455.

and Wiggam, D. R., printing lacquer, (P.), B., 463. Nitrated polyhydric alcohol emulsion, (P.), B., 525.
Wiggam, D. R., and Tinsley, J. S.,

mixed esters of cellulose, (P.), B., 15. Hercus, E. O., effect of dissolved air on

specific heat of water over the range 15—20°, A., 417.

Herd, J. D., nature of paranuclein, A., 1404. Herengnel, J., and Chaudron, G., purification of magnesium and calcium by distillation, B., 794.

Herfeld, H., leather dycing, leather body colours, and manufacture of patent leather, B., 609.

See also Stather, F.

Hering, H., equilibria between water and simple and double halides of cadmium and potassium, A., 798.

Hérissey, H., and Gravot, M., stachyose (mannotetrose) and an aucuboside (aucubin) in Plantago maritima, L., and P. carinata, Schrad., A., 396.

and Poirot, G., extraction of a crystalline substance, viburnitol, from leaves of Viburnum tinus, L., A., 1307.

Herles, F., determination of starch in starch, flour, wheat, and bread by the polarimetric method, B., 1226.

Herlinger, E., structure of the real macrocrystal, A., 782. Relation between faults and growth-cessations in crystals, A., 782. Atomic and ionic radii. II., A., 1448.

Herman, J., autoxidation of iron, manganese, and cobalt hydroxides, A., 691.

Herman, L., and Herman-Montagne, (Mme.) R., ultra-violet absorption spectrum of oxygen, A., I. Absorption coefficients of the 4774, 5770, and 6290 A. oxygen bands, A., 1039.

See also Déjardin, G., and Herman-Montagne, (Mme.) R.

Herman, S. M., oil composition, (P.), B., 930. Herman-Montagne, (Mme.) R., Herman, L., and Ricard, R., photographic photometry in the extreme ultraviolet, A., 1077.

and Ricard, R., photographic photometry in the extreme ultra-violet, A., 688.

See also Herman, L. Hermance, H. W. See Clarke, B. L. Hermann, C. E., air separator, (P.), B., 963. Hermann, H., Dechaume, J., and Morin, G., adrenaline content of the adrenal capsules after destruction of the dorsolumbo-sacral marrow in the dog, A.,

Dechaume, J., and Vial, J., lipuria in dogs experimentally deprived of their dorso-lumbo-sacral marrow, A., 99.

Morin, G., and Vial, J., sensitisation by cocaine of the hypertonic effects of adrenaline, A., 642.

Hermann, R., viscosity of aqueous suspensions, A., 562.

Hermann, S., and Neiger, R., effect of cholesterol and insulin on fermentation by yeast, A., 112. Toxic action of certain chemical compounds on Tilletia tritici as a measure of permeability, B., 248.

and Neuschul, P., biochemistry of Bacillus mesentericus hydrolyticus, A., 113. Oxidation of mannose to mannonic acid by B. gluconicum (Hermann), A., 640. Continuous production of gluconic acid by means of B. gluconicum (Hermann), B., 215. Hermanns, G. Seo Borchers, H.

Hermano, A. J., and Aguila, P. J., vitamin contents of Philippine foods. IV. Vitamin-A and $-B_1^{r_1}$ in various fruits and vegetables, B., 472.

and Claravall, S., mineral constituents in fresh and canned milk, A., 97.

Hermans, J. J., ionic mobility, A., 292. Diffusion potentials and ionic activities, A., 682, 683.

Hermans, P. H., old and new chemistry of radicals, A., 1051.

and Bredée, H. L., principles of mathematical treatment of constant-pressure filtration, B., 127.
Hermansen, V., and Wiig, O., insulating

material [floor cement], (P.), B., 456.

Hermansson, P. Sce Platon, B. Hermsdorf, R. P. E., and Heberlein, M., electrolytic solder, B., 503.

Hernández, C. See Garcia-Blanco, J. Herning, F., application of the Reynolds number to technical gases, B., 531.

and Zipperer, L., calculation of viscosity of gas mixtures from viscosities of their components, B., 527. See also Wunsch, W.

Herold, I., behaviour of perfumes in soaps, B., 1105.

Herold, L., deaminating and urea-forming power of the liver in normal pregnancy; întermediary protein metabolism, A., 233.

See also Anselmino, K. J., and Effkemann, G.

Herold, P. See Standard-I.G. Co. Herold, P. G. See Schwartzwalder, K.

Herold, W., and Rosenmund, K. W., is the methyl group attached to the benzene nucleus positive or negative? A., 1497.

Herreid, E. D. See Macy, H. Herreilers, H. W., thermodynamic calculation of composition of binary compounds, A., 1464.

Herrenschmidt, J. D. See Vellinger, E.Herrera, J.J., action of hydrogen peroxide on organic sulphur compounds, A., 983. See also Bermejo, L., and Staudinger, H.

Herrero Ortiz, G., formation of polyiodides in dark solutions, A., 935. Partition coefficient of iodine between water and carbon tetrachloride, A., 1063.

Herrick, H. T. Sec May, O. E., and Ward, G. E.

Herrin, R. C., effect of atropine and pilocarpine on emptying time of the human stomach, A., 1416.

Rabin, A., and Bachhuber, E. A., effect of atropine and pilocarpine on gastric emptying in normal and denervated dogs, A., 1416. Herriott, Robert M. See Calvery, H. O.

Herriott, Roger M., acetylation of tyrosine in pepsin, A., 244.

and Northrop, J. H., isolation of crystal-line pepsinogen from swine gastric mucosæ and its autocatalytic conversion into pepsin, A., 1025.

Herrle, K. See Fischer, Hans. Herrmann, C. L. See Bodansky, M. Herrmann, C. V. See Booth, H. S., and Perry, J. H.

Herrmann, E., aluminium in building construction, B., 199. Applications of aluminium powder, B., 1099.

Herrmann, G., Decherd, G. M., jun., and Oliver, T., creatine content of human hearts, A., 1535.

See also Decherd, G. M., jun., and Solacolu, T.

Herrmann, H., asymmetry in metallic zinc and cadmium, A., 1326.

Herrmann, K., X-ray investigations of liquid crystals. V., A., 414.

Herrmann, L., rotary screening, sieving, and sorting devices, (P.), B., 176.

Herrmann, Ö., light yield in the nitrogen spectrum excited by electron collision, A., 261. Dependence of intensities of rotation lines of a band on conditions of excitation, A., 261, 1437. Intensity measurements in spectra of neon and argon excited by electron collision, A., 261.

Herrmann, P., adhesion of stone and bitumen binders, such as bitumen and tar, and its significance in practice, B., 499.

Herrmann, R., action of the supplementary manuro Naaki, B., 292. Herrmann, Roland. See Weidenhagen, R.

Herrmann, W. See Grube, G.

Herrmann, Wilhelm, heat treatment of steel products in oil and metal baths, B., 104.

Herrold, R. D., effect of formaldehyde on growth of tubercle bacilli, A., 1423. Herry, J. See Corin, C.

Herschdörfer, S., inactivation of milk-phosphatase, A., 1299.

Hersh, J. M., and Nelson, R. E., hydrolysis of $a\beta$ -dichloro- β -methylpropane

producing isobutaldehyde, A., 1363. Hersh, R. E., Fisher, E. K., and Fenske, M. R., viscosity of petroleum products; viscosity-temperature characteristics of Pennsylvania lubricating oils, B., 132.

Hershberg, E. B., precision m.-p. apparatus, A., 1083. Laboratory stirrer, A., 1085.

See also Fieser, L. F.

Hershey, A. V., and Bray, W. C., kinetic and equilibrium measurements of the reaction 2Fe+++2I-=2Fe+++I2, A., 1345.

Herszfinkiel, H., and Wertenstein, L., absorption of y-rays excited in cadmium by slow neutrons, A., 402.

Hertel, E., and Becher, W., passivation and activation of chromium-iron alloys. B., 840.

and Becker, Gottfried, formation of protective layers [of chromium] on iron and steel articles, (P.), B., 553.

Hertel, E., and Bergk, H. W., lattice structure of condensed aromatic hydrocarbons and their molecular compounds with trinitrobenzene, A., 1327.

and Dumont, E., reactivity and dipole moment, A., 12. Simultaneous formation of double and triple complexes

in dipole association, A., 22.

See also Becker, Gottfried. Hertel, H., biological value of fresh milk and milk heated for short periods, in experiments on rat-feeding, A., 509.

Herter, J. R. Scc Le Gloahec, V. C. E. Herting, O., and Bogert, E. O., cooking utensil, (P.), B., 570.

Herty, C. II., jun., physical chemistry of steelmaking; deoxidation of steel, B.,

Christopher, C. F., Freeman, C. F., and Sanderson, J. F., physical chemistry of steelmaking; control of iron oxide in the basic open-hearth process, B., 22.

and Daniloff, B. N., effect of deoxidation on ageing of mild steels, B., 22.

and McBride, D. L., effect of deoxidation on impact strength of carbon steels at low temperatures, B., 22. See also MacBride, D. L.

Hertz, S., and Oastler, E. G., assay of blood and urine for thyrotropic hormone in thyrotoxicosis and myxædema, A., 1565.

Hertzog, E. S., occurrence and amenability to leaching of the phosphorus compounds of Alabama in some red iron ores, B., 273. Herviaux, J. See Vincent, V.

Herz, E., and Remington Arms Co., lead styphnate, (P.), B., 525.

Herz, N., bullion parting at the Homestake mine, B., 325.

Herz, IV., action of the vagus on the frog's heart maintained in absence of potash, A., 634.

Herzberg, G., dissociation energies of carbon monoxide and CN, and heat of sublimation of carbon, A., 682.

and Verleger, H., photographic infra-red spectrum of some simple carbon compounds in the gaseous state, A., 921. See also Funke, G. W.

Herzenberg, R., and Ahlfeld, F., blockito, a new sclenium ore from Bolivia, A., 1227.

Herzenstein, A. See Cherbuliez, E. Herzfeld, K. F., and Mayer, (Miss) M. G.,

dispersion, A., 409. Herzig, A. J. See Climax Molybdenum Co. Herzig, J., nutritive value of leaves, flowers, and stems of lucerne, B., 616. and Žák, J., nutritive value of lucerne at different stages of growth, B., 618. Mineral content of lucerne at different stages of growth, B., 618.

Herzog, Eduard, copper steels, B., 547. Causes of electrochemical corrosion of iron and its alloys in moist aërated media,

B., 994.

Herzog, Erich, dyeing of a solid shade on acetate rayon or acetate silk, B., 366. Finishing of acctate-silk and acctate-rayon crêpos, B., 367. Dyeing of a developed black on acetate-rayon crepe fabrics, B., 492. Boil-off, dyeing, and finishing of acetate-rayon and acetatesilk crôpes, B., 492.

Herzog, G., and Scherrer, P., cosmic-ray measurements with a Wilson chamber on Jungfraujoch, A., 1441.

Herzog, H. See Baner, K. II.

Herzog, H. A., and Lawrence Leather Co., A. C., tanning [of white leather], (P.), B., 1114.

Herzog, W., temperature variation of the electro-optical Kerr effect of nitrobenzene at its transition point, A., 13.

Herzum, A., action of electromagnetic short waves on development of the plant

embryo, A., 256.

Hesemann, F., omulsifiers in pharmaceutical and cosmetic industry, B., 170. Technical preparation of emulsions in the pharmaceutical and cosmetic industry, B., 859.

Heskett, J. A., soluble, synthotic, basic-slag fertiliser, (P.), B., 342.
Heslop, R. N. Sco Heilbron, I. M.

Hess, A. F., Abramson, H., and Lewis, J. M., dental caries. III. Rickets in relation to caries in deciduous and in permanent teeth, A., 364.

Hess, E. M., naked barley as browing material, B., 900.Hess, H. H. Sco Phillips, A. H.

Hess, K., and Neumann, F., [2:3:6-trimethylglucoscanhydride], A., 55.

and Trogus, C., preparation of the individual forms of sodium-celluloses and their significance for mercerisation. I. Formation of sodium-cellulose III, B., 1145.

Trogus, C., and Wadano, M., colluloid formation. II. Effect of reaction medium on heterogeneous changes occurring in the fibrous state. III. Catalysed reactions in the fibrous state; heterogeneous catalysis with a solid substrate and liquid catalyst. IV. Production of celluloid from cellulose nitrate and l- or dl-camphor, A.,

and Ulmann, M., membrane method and method of isothermal distillation with highly polymerised compounds, A., 972.

See also Philippoff, W., Trogus, C., and Ulmann, M.

Hess, Lewis. See Fogg, H. C.

Hess, Ludwig, influence of preservatives on

flavour of fruit juices, B., 1066. Hess, R. W. See Nat. Aniline & Chem. Co. Hess, V. F., Graziadei, H. T., and Steinmaurer, R., alterations of intensity of cosmic radiation on the Hafelekar (2300 metres), A., 7.

Hess, W., rôle of the vagus in automatic

regulation of respiration, A., 1529. Hess, W. C., and Sullivan, M. X., separation of guanidine and methylguanidinc by naphthalene-2-sulphonic acid, A., 195.

See also Sullivan, M. X.

Hesse, E., metallised tooth-pastes containing iodine, B., 859.

Hesse, G, chromatographic analysis and its application, A., 810. [with Klingel, W.], dragon's blood, A.,

1435.

See also Wieland, H.

Hessen, R. See Nowack A.-G., A. Hessenbruch, W. Sco Grunert, A., and

Heraeus Vaeuumschmelze Akt.-Ges. Hessle, E. T., and Thiophene Products Co., [preparation of] sulphonated and neutralised hydrocarbon-sulphur compounds, (P.), B., 444.

Hessling, G. von. See Lottermoser, A. Hessner, K., platinum metals obtained during electrolytic gold refining, and industrially-important gold preparations, B., 551.

Hester, J. B., influence of lime on soil reaction and yield of Irish potatoes, B.,

Hester, W. F., Raterink, H. R., Somerville, I. C., and Röhm & Haas Co., synthetic tanning materials, (P.), B., 113.

and Röhm & Haas Co., condensation products of dissobutylene and [monohydric] phenols, (P.), B., 1143.

Sco also Robinson, J. D.

Hetherington, A. C. Sco Imperial Chem. Industries.

Hetherington, D. C., pinacyanol as supravital mitochondrial stain for blood, A., 1572.

and Shipp, M. E., effect of cupric, manganous, and ferric chlorides on cardiac explants in tissue culture, A., 372.

Hetherington, H. C. Sco Du Pont de Nemours & Co., E. I.

Hetler, R. A., and James, W. M., influence of dietary deficiencies on transmission of trachoma to monkeys, A., 1408.

Hetterschij, C. W. G., distribution of phosphoric acid in soils, B., 246.

Hettwer, J. P., gravimetric method for determining oxygon consumption in man,

Hetzer, J., determination of practical value of foaming, wetting, washing, detergent, and similar agents; determination of wetting power, B., 284. Chemistry of wetting-out, B., 584.

Hetzer, \bar{R} . A., fabric-cleansing system, (P.), B., 271.

Heubaum, V. See Wiberg, E. Heubel, H., diffusion working [of sugar beet] with passage of liquor from bottom to top, B., 1119.

Henberger, J., formation of resin from hexamethylenetetramine, B., 1056.

Heublum, R., new catalysts for fat-hardening, B., 378. Extraction of fat from catalyst in fat-hardening, B., 378.

Heuck, C. Sec Luther, M. Heuckeroth, A. W. van. See under Van Heuckeroth.

Heuer, G. J. See Page, I. H.

Heuer, R. P., and Gen. Refractories Co., high-pressure brick containing magnesia and its manufacture, (P.), B., 455. High-pressure chrome refractory, (P.), B., 455.

Heuer, W. See Staudinger, H.

Heukelekian, H., carbon dioxide production in mixtures of sewage and activated sludge, B., 699. Oxygen tension and bacterial numbers [in water], B., 957.

Heukeshoven, W., $p_{\rm H}$ determination in soils, using the centrifuge, B., 1170.

See also Blanck, E.

Houpke, W., changes in colloids during acid treatment and cooking of meat, B., 121.

and Belz, F., secreted nitrogen in the faces and dietary protein utilisation, A., 229.

Heuser, E., nature of cellulose, A., 1096;

Heuser, G. F., vitamin-B2 requirement of turkeys, B., 1067.

See also Norris, L. C., and Wilgus, H. S., jun.

Heuser, H., clear liquid egg, (P.), B., 43. and United States Process Corp., chillproofed, full-bodied, albuminoid-containing, fermented beverages, (P.), B., 343.

Heuser, L., heat-exchange devices, (P.), B., 304.

Heuser, R. V., and Amer. Cyanamid Co., thiourea, (P.), B., 89.

Heveatex Corporation, preparation of reversible rubber compositions from rubber latex and their reversal, (P.), B., 803. Compounding of rubber, (P.), B., 848. Granulated and reversible rubber composition from rubber latex, (P.), B., 848. Rubber goods directly from latex, (P.), B., 1113. Rubber goods from rubber latex, (P.), B., 1113.

See also Crockett, J. B., Edwardes, J., Noble, R. J., and Winchester, G. W.

Hevesy, G. von, and Levi, H., action of slow neutrons on rare-earth elements, A., 403.

Linderstrøm-Lang, K., and Olsen, C., atomic dynamics of plant growth, A.,

See also Frisch, O. R.

Hevi Duty Electric Co. See Hansen, F. A.

Hewell, B. See Robinson, Charles S. Hewett, C. L., synthesis of compounds related to sterols, bilo acids, and mstrus-producing hormones. VIII., A., 326. Polycyclic aromatic hydrocarbons. XIV. Synthesis of 3:4-benzphenanthrene, A., 835.

See also Bachmann, W. E., Cohen, A.,

and Cook, J. W.Hewitt, J., X-ray examination of effect of removing non-cellulosic constituents from vegetable fibres, B., 13.

Hewitt, J. W., testing of gas-flow meters, B., 402.

Hewlett, S. D. See Birchy, C.

Hewlett, W. L., corrosion of lead alloycoated steel cylinders used as fire extinguishers, B., 744.

Hey, A. See Wartenberg, H.

Hey, D. H., and Jackson, E. R. B., migration reactions in polycyclic systems. I. Fries rearrangement of 4-benzoyloxydiphenyl, A., 991. See also Heilbron, I. M.

Hey, M. H., diffusion in zeolitic solids, A., 1333.

[with Bannister, F. A.], zeolites. IX. Scolecite and metascolecite, A., 586. See also Bannister, F. A.

Heycock, D. J., removal of water vapour and naphthalene from town gas, B., 434.

Heyden Chemical Corporation. Seo Canon, F. A.

Heydenburg, N. P., Zahn, C. T., and King, L. D. P., a-particle yield from lithium under proton bombardment, A., 264. See also Haistad, L. R., and Tuve, M. A.

Heyer, B. S., and Rader, D. S., determination of photosynthetic and respiratory ratios, A., 1570.

Heyes, J., direct photo-electrometric determination of manganese and chromium in the flame, A., 1222.

See also Jansen, W. H.

Heyes, T. F., causes of shrinkage in wool

[knitted] underwear, B., 93.

Heyl, G. E., reclaiming of vulcanised rubber, (P.), B., 112. Treatment of seeds, bulbs, and tubers, (P.), B., 808.

Heyl, J. G., De Jongh, S. E., and Kooy, R., inhibition of thyroid activity by the follicular hormone (menformone), A., 252.

Heyl, L. H., parasiticidal compositions, (P.), B., 950.

Heyman, W. A., soluble coffee, (P.), B., 1233.

Heymann, E., sol-gel transformations. II. Dilatometric investigations on iron hydroxide, gelatin, methylcellulose, silicic acid, and viscose, A., 427. Dilatometric investigations on heat-denaturation of proteins. I., A., 493.

Heymans, C., and Casier, H., action of various nitro-compounds on metabolism and [body-]temperature, A., 1020.

Heymer, G., colour-film [production] by the silver dye-bleach process, B., 1131.

Heyn, A. N. J., chemical nature of some growth hormones as determined by the diffusion method, A., 394. X-Ray investigations of molecular structure of chitin, A., 414.

Heyne, G., and Schön, M., filter opaque to ultra-violet light, A., 1480.

Heyningen, W. E. van. See Friedmann, E. Heyroth, A. H., Miller, J. I., and Globar Corp., electric furnace, (P.), B., 555. Schildhauer, W. E., and Globar Corp.,

electrical resister, (P.), B., 1001.

Heyroth, F. F., use of various rat assay methods in comparing crystalline vitamin-B, preparations, A., 646.

and Loofbourow, J. R., chemical nature of vitamin- B_1 deduced from ultraviolet absorption spectra, A., 646.

Heyrovský, J. See Březina, J. Heyward, F., soil-sampling tubes for shallow depths, B., 805.

Heywood, \hat{H} , resistance to grinding of coals, B., 225.

Heyworth, D., and Bennett, R. D., effect of paraffin and lead on rate of production of very large cosmic-ray bursts, 1442.

Hibbard, P. L. See Chandler, W. H. Hibben, J. H., Raman spectra of oxalic acid, A., 9, 777.

Hibbert, H. See Barsha, J., Bilger, E. M., Compton, J., Gallaugher, A. F., King, E. G., Maokinney, H. W., Perry, S. Z., and Tomlinson, G. H., jun.

Hibbit, D. C., and Linstead, R. P., fused carbon rings. VII. Preparation of cyclic hydrocarbons from unsaturated tertiary alcohols; synthesis of cis-9methyl-octalin and -decalin, and proof of the presence of the angular methyl

group, A., 713.
Linstead, R. P., and Millidge, A. F.,
fused carbon rings. VIII. Dehydration of 2-methyl-1-47-butenylcyclo-

hexanol, A., 846. Hibbs, W. M., production and purification

of sulphur dioxide [from sludge acid], (P.), B., 789.

Hibi, K., granular [calcium] carbide and its characteristics, B., 738.

Hickey, G. M., and Bishop & Co. Platinum Works, J., catalyst for ammonia oxidation, (P.), B., 1091.

Hickling, A., electrolytic oxidation. VIII. Apparent reducing properties of an anode, A., 1472.

Sce also Glasstone, S.

Hickling, H. G. A., geological aspects of recent research on coal, B., 82.

Hickman, A., Hodson, G. N., and Spiers, W. E., stoneware in chemical plant construction, B., 739.

Hickman, K. C. D., vacuum pumps and pump oils. I. Fractionation pumps. II. Comparison of oils, B., 575.

See also Eastman Kodak Co., and Weyerts, W.J.Hicks, A. M. See Hosford, G. N.

Hicks, C. S., d-nornicotine, A., 741.

Hicks, C. S., Brücke, F. T., and Hueber, E. F., pharmacology of Duboisia Hopwoodii (d-nornicotine), A., 1022.

and Le Messurier, H., chemistry and pharmacology of alkaloids of Duboisia Hopwoodii, A., 125.

See also Späth, E.

Hicks, V., X-ray studies of crystalline substances in glasses, B., 642.

See also Blau, H. H. Hicks, W. R. See Pollock, J. E.

Hicks-Bruun, M. M., and Bruun, J. H.,

f.p. and b.p. of propane, A., 787. and Classey, L. W., pipette for titrating dark-coloured liquids in two phases, A., 955.

Hickson, W. S. E., rate of absorption of oxygen by sodium sulphite solution, A., 1470.

Hida, T., production of dimethylpyruvic and pyruvic acids by Aspergillus niger, A., 112.

Hidnert, P., thermal expansion of copperberyllium alloys, A., 1193.

Hieber, G. See Baukloh, W.

Hieber, W. [with Krämer, K., and Schulten. H.], metal carbonyls; metal carbonyl hydrides, A., 1080.

and Schnackig, A., [metal-]complex chemical behaviour of o-aminophenol, A., 465.

Hiedemann, E., and Hoesch, K. II., rendering visible standing ultrasonie waves in transparent solid substances. III. Optical strain analysis of clastic vibrations, A., 277. Ultrasonic stroboscope, A., 1224.

and Schreuer, E., diffraction of light by progressive ultrasonie waves, A., 673. Seifen, N., and Schreuer, E., dispersion

of sound in liquids, A., 1453.

See also Brandt, O. Hiegemann, J_{\bullet} , high- and low-frequency conductivities of solutions of electrolytes in glycerol and glycerol-water mixtures. A., 429.

Hientzsch, B. See Fingerling, G.

Hieronimus, O., determination of santonin in [Artemisia] cina according to the methods of Massagetov and of D.A.B. VI., B., 619.

Hiers, G. O., and Nat. Lead Co., refining of white-metal scrap, (P.), B., 240.

Hiestand, J. R. See McWhorter, M. T. Higasi, K., dipole moment and solvent, A., 550. Polarity of chemical compounds. IX., A., 1182.

Higasi, T., yellow pigment from saké-kasu (saké grains), A., 1514.

Highy, R. H., and California Fruit Growers

Exchange, stabilised citrus beverage and syrup, (P.), B., 619. Higginbotham, R. S. Sec Richardson, W. A.

Higginbottom, (Miss) A. See Hill, P.

Higgins, J. A. See Camp, W. J. R., and McGuigan, H. A.

Higginson, G. S., and Vredenburg, J. C., moulding of [tubular] articles from plastic moulding compositions, (P.), B., 111.

Higgs, E., dyeing and finishing Bemberg rayon, B., 787.

Highberger, J. H., mounting cell for bulb type of glass electrode, A., 305. Laboratory shaking machine, A., 956. Chemistry of collagen. I. Preparation of collagen from fresh steer hide. II. Titration and swelling curves in hydrochloric acid and sodium hydroxide of the collagen of steer hide, B., 465, 1169.

Highlands, M. E., and Bates, P. K.. Méker burner with auxiliary flame for bacteriological use, A., 1424.

Highriter, H. W., and Lilliendahl, W. C., embrittlement of uranium by small amounts of aluminium and iron, B.,

Higuchi, M. See Kondo, Seiji.

Higuti, I., application of Bangham and Sever's formula of sorption velocity, A., 561. Sorption of gases by titania gel. II. Relation between the pressure and the sorbed amount of sulphur dioxide, A., 791. Absorption velocity of sulphur dioxide by sodium iodide, A., 1470.

Hilbert, G. E., and Jansen, E. F., synthesis

of 1-d-glucosidocytosine, A., 319.
Wulf, O. R., Hendricks, S. B., and
Liddel, U., hydrogen linking between oxygen atoms in organic compounds, A., 703.

See also Hendricks, S. B., and Pinck, L. A.

Hildebrand, J. G., jun., and Bogert, M. T., Beekmann rearrangement of 2-alkylcyclopentanone- and -cyclohexanoneoximes, A., 726. Efficient expansible mechanical stirrer and its use in organic

syntheses, A., 1482. Hildebrand, J. H., dipole attraction and hydrogen bond formation in their relation to solubility, A., 411.

See also Morrell, W. E.

Hildisch, D., treatment of fresh whale flesh and similar flesh containing fish

oil, (P.), B., 619. Hilditch, T. P., oleic acid, A., 53. Analysis of ester mixtures containing two saturated and two unsaturated fatty

acids, B., 892. and Ichaporia, M. B., composition of some solanaceous seed-fats, B., 845.

and Lovern, J. A., evolution of natural

fats, A., 748.

and Paul, H., hydrogenation of Δ^9 . octadecenyl 49-octadecenoate (oleyl oleate), A., 822. Occurrence and possible significance of some minor components of cow-milk fat, A., 1536.

and Rigg, J. G., direct esterification of higher fatty acids with glycerol and with ethylene glycol, A., 188. and Stainsby, W. J., component glycer-

ides of cacao butter, B., 508.

and Thompson, H. M., effect of certain ingested fatty oils on composition of cow milk fat, A., 749.

Sec also Abraham, E. E. U., Green, T. G., and Imperial Chem. Industries. Hiles, C., processing [dyeing and finishing] of coloured felt for use in musical instru-

ments, B., 16.

Hilferding, K., and Steiner, W., rate of combination of bromine atoms, A., 293.

See also Abel, E.

Hilger, Ltd., A., and Pineo, O. W., spectro-photometer, (P.), B., 131. Hilgert, R., and Bothe, W., structure of

cosmic rays, A., 658

Hill, A. See Lauer, W. M. Hill, A. E., and Distler, E. F., solubility of ammonium oxalate in water, A., 24. and Kaplan, N., ternary systems. XXI. Lead nitrate, ammonium nitrate, and water at 25°, A., 1340.

Hill, A. S. G., measurement of optical densities of smoke stains on filterpapers, A., 1223.

Hill, A. V., Cercospora leaf-spot (frogeye) of tobacco in Queensland, B., 807.

and Allan, J. M., downy mildew (blue mould) of tobacco; attempts at control by use of (i) sprays, (ii) heated seed beds, B., 1118.

See also Angell, H. R.

Hill, Archibald V., excitation and accommodation in nerve, A., 632.

Hill, C. F., polar characteristics of electrical insulation-dielectric dispersion, B., 506. Hill, C. W. See Painter, R. K.

Hill, D. W., condensation of deoxybenzoin with aromatic aldehydes and ketones. I. Condensation with salicylaldchyde, A., 997.

See also Beaven, G. H.

Hill, E. See Koehler, A. E.

Hill, E. L., virial theorem and theory of fusion, A., 551. Fusion, A., 557. See also Wells, W. H.

Hill, E. M., and Robson, W., new synthesis of methionine and a scheme relating certain a-amino-acids, A., 320.

Hill, F. B. See Brit. Celanese. Hill, F. C., Henrich, L. C., and Wilhelmj, C. M., mechanism by which acidity of an acid meal is reduced in the stomach, A., 367.

Sce also Wilhelmj, C. M.

Hill, G. A., and Cofrancesco, A. J., ω benzyl derivatives of acetophenone and their reduction products, A., 335.

Hill, H., and Grant, E. P., growth of turnips in artificial cultures, B., 340.

Hill, H. S. See Gough, J. B.

Hill, J. B., and Atlantic Refining Co., treatment of oil-wax mixtures, (P.), B., 916.

Hill, J. M., printing of silk fabric with direct dyes, B., 16. Printing of white discharges on rayon piece goods, B., 16.

Hill, J. R. See Focke, A. B. Hill, J. W. See Natta, F. J. van.

Hill, K. See Royen, P.

Hill, L. O., standardisation of sodium thiosulphate iodometrically against copper, A., 950.

Hill, N. C., and Mathieson Alkali Works,

caustic liquor, (P.), B., 986. Hill, P., Short, W. F., and Higginbottom, (Miss) A., phenanthrene series. I. 2-Mcthoxy-1-methylphenanthrene, A., 720. Hill, R., oxygen dissociation curves of muscle-hæmoglobin, A., 1138.

and Richter, D., glycosides of madder,

A., 1095. and Wolvekamp, H. P., oxygen dissociation curve of hæmoglobin in dilute solution, A., 1134.

Hill, R. M. See Dubach, R., and Longwell, B. B.

Hill, S., and Woodcock, A. H., elastic scattering of slow electrons from organic molecules, A., 1170.

Hill, S. B., jun., Yothers, W. W., and Miller, R. L., effect of arsenical and copper insecticides on natural control of whiteflies and scale insects by fungi on orange trees in Florida, B., 37.

Hill, S. G. See Griffith, R. H.

Hill, T.G. See Haas, P.Hill, T.J. See Kick, C.H.Hill, W.L., and Beeson, K.C., composition and properties of superphosphate. IV. Free acids in fresh superphosphate, B., 738.

and Hendricks, S. B., composition and properties of superphosphate, B., 693. See also Rader, L. F., jun.

Hille, E. See Alten, F.

Hiller, A. See Van Slyke, D. D. Hiller, T., identification of silver in opaque minerals by imprints, A., 951.

Hillhouse, C. B., and Hillhouse, S. R., water-gas, (P.), B., 729. Continuous gas-making process, (P.), B., 729.

Hillhouse, S. R. Seo Hillhouse, C. B. Hilliard, G. E., treatment of metals [melt-

ing steel scrap], (P.), B., 280. Hilliker, W. P. See Standard Oil Co., and Standard Oil Co. of Indiana

Hillis, T. E. See Crowell, W. R. Hillkowitz, W. See Raczkowski, H. E. Z. Hillman, B. S., dyeing of pile fabrics, B., 367.

Hillman, C. A. See Standard Oil Development Co.

Hillmann, W. O'B. See Lewis, R. H. Hills, E. S., reverse and oscillatory zoning

in plagioclase felspars, A., 1088. Hills, G. M., and Robinson,

o-phenylpentadecoic and χ-phenylbehenic acids, A., 468. Hills, H. W. J., Kenyon, J., and Phillips,

H., isomeric forms of optically active ay-dimethylallyl alcohols $[\Delta^{\gamma}$ -penten- β ols], A., 820.

Hills Brothers Co. See Browne, H. H. Hillstrom, R. J., carboniser, (P.), B., 52. Hillyer, J. C. See Lincoln, A. T. Hilpert, R. S., forrites, A., 1477.

[with Littmann, E, Peters, O., Hellwage, H., and Lissner, O.], lignin in straw and deciduous trees, A., 123. [with Rossée, W., and Wagner, R.],

composition of the plant cell wall, A., 1036.

and Bolling, A., behaviour of the apparent lignin during degradation of rye straw by hydrogen sulphite, A., 1116.

and Hellwage, H., influence of alkaline pretreatment of wood on cooking with bisulphite-sulphurous acid, B., 635. Decomposition of woods, B., 635. and Schweinhagen, R., ferrites. III.,

A., 415.

and Wisselinck, S., dioxan-lignin and pigment of ebony wood, A., 858.

and Wolter, A., action of hot alkali solutions on carbohydrates, A., 318. Chemical processes in preparation of straw-cellulose, B., 735.

Hilsch, R., thermal formation of colour centres and their life-period, A., 137. Physical investigations on alkali halide crystals, A., 275.

and Pohl, R. W., quantum yield of formation of colour centres in KBr crystals, A., 923.

Hiltner, P. P., and Metzner, H., albumin from animal matter, (P.), B., 251.

Hilton, C. L. See Imperial Chem. Industries.

Hilton, J. See Bailey, K. C.

Hilton, J. H., Hauge, S. M., and Wilbur. J. W., vitamin-1 activity of butter produced by cows fed lucerne hay and soya-bean hay cut in different stages of maturity, B., 666.

See also Wilbur, J. W.
Hilton, W., O'Donnell, R. W. H., Reed,
F. P., Robertson, A., and Rusby, G. L., analogues of rotenone and related com-

pounds. I. Chromeno-(3'.4':4:3)-coumarins, A., 733.

Himmel, H. See Ahlfeld, F.

Himmelbaur, W. See Dafert, O.

Himmelfarb, D. See Sabetta, V. J.

Himmelheber, M., materials simulating wood, (P.), B., 500.

Himmerich, F., regulation of oxygen output of crythrocytes. I., A., 494. and Feinberg, R. S., regulation of oxygen

output of erythrocytes. II. Bloodglycolysis, A., 494.

and Tschernjak, F. S., regulation of oxygen output by erythrocytes. III. Blood glycolysis, insulin, and adrenaline, A., 1425.

Himsworth, F. R. See Imperial Chem. Industries.

Himsworth, H. P., diabetes mellitus, its differentiation into insulin-sensitive and insulin-insensitivo types, A., 365. Himwich, H. E., Fazikas, J. F., and Spiers,

M. A., sodium deficiency [in animals], A., 1413.

Gildea, E. F., Rakieten, N., and DuBois, D., effects of inhalation of carbon dioxide on the carbon dioxido capacity of arterial blood, A., 620.

Goldfarb, W., and Fazikas, J. F., carbohydrate metabolism of the heart during

pancreas diabetes, A., 1411. See also Allison, M. J. C., and Barker, S. B.

Hinata, Y. See Lauer, K. Hind, H. L., and Hamnett, E. N., interpretation of malt analyses, B., 40.

Hind, W. See Player, E.

Hinde & Dauch Paper Co. See Drewsen, P.

Hindin, L. See Panjutin, P.

Hinds, G. E. See Hass, H. B.

Hinds, J. F. See Gray, J. A.

Hines, E. See Tainter, M. L.

Hines, L. See Culbertson, J. B. Hines, P. R., de-inking imprinted paper, (P.), B., 270.

and Bean, J. J., technical control of de-inking operations [for paper], B., 980.

Hinke, F. See Neseni, R. Hinkel, L. E., Ayling, E. E., and Beynon, J. H., hydrogen cyanide. VI. Mechanism of Gattermann's hydrogen cyanide aldehyde synthesis. VII. Aldehydes from aromatic hydrocarbons, A., 471, 725.

Hinman, W. F. See Peacock, S. C. Hinonishi, S. See Kobayashi, K. Hinrichs, M. A. See Lillie, R. S.

Hinsberg, K., determination of hydroxyl number of hydroxy fatty acids, A.,

and Ammon, R., micro-determination of lactic and carbonic acids, A., 768.

See also Ammon, R., and Holland, G. Hinsherg, O., β -phenyl sulphide, A., 602. Hinshelwood, C. N., mode of action of

solvents on chemical reaction velocity, A., 802. Kinetics of explosive reactions, A., 1208.

and Legard, A. R., polar and non-polar effects in esterification, A., 35.

and Mitchell, J. W., reaction of nitric oxide with hydrogen and with deuterium, A., 567.

and Staveley, L. A. K., influence of hydrogen on unimolecular reactions involving short chains, A., 941.

and Winkler, C. A., bimolecular reactions in solution, A., 568. Oxidation of cyclic compounds by potass-

ium permanganate, A., 569.
See also Newling, W. B. S., Pickles,
N. J. T., Staveley, L. A. K., and Winkler, C. A.

Hintz, H., and Jellinek, K., vaporisation equilibria in the binary salt mixture IlgCl₂-HgBr₂, and in the reciprocal salt-pair (Na, K) (Cl, Br), A., 674.
Hintzelmann, U., pharmacological evalu-

ation of Allium preparations, A., 652.

Hinze, A., reactivation of bone-black without oven treatment, and its use in beetsugar and glucose processes, B., 1063.

Hippel, A. von, the Geiger counter and gas discharges as space-charge problems, A. 133. Electrolysis, dendritic growth, and discharge in alkali halide crystals, A., 412.

Hippensteel, C. L., galvanic and electrolytic corrosion, B., 549.

Hipple, J. A., jun., and Bleakney, W., products of ionisation in methane, A., 1312.

See also Bleakney, W., and Wahl, M. H. Hirai, I. See Boku, S.

Hirai, K., formation of putrescine from d-arginine by bacterial action, A., 524.

Hiraiwa, I. See Yamafuji, K. Hiraiwa, M. See Asahina, Y.

Hirakoso, K., electrolytic winning and refining, B., 417. Characteristic critical voltage at the critical current density in deposition of spongy copper, with reference to concentration of copper in the electrolyte, B., 551.

Hirano, Š., determination of sulphur in soluble sulphides by photometric titration, A., 42. Determination of small amounts of lead by photometric titration, A., 179. Determination of small amounts of mercury by photometric titration, A., 179.

See also Ogata, A. Hirao, N., synthesis of 4-hydroxy-3-ethoxy-1-allylbenzene from 4-hydroxy-3methoxy-1-allylbenzene (eugenol), A., 839.

Hirao, S., Manchurian kaoliang (Andropogon sorghum, Brot.), A., 124.

See also Suzuki, U.

Hirashima, K., influence of mercury on cultivated tissues. III. How will the action of mercury compounds on cultures of fibroblast in vitro be influenced by glucose? A., 108.

Hirata, F., microscopical method for measuring viscosity of a liquid, A., 182.

Hirn, T. See Komppa, G. Hirone, T. See Honda, K.

Hirose, Y., antibody production through the cutaneous route, A., 359.

Hirota, K., and Horiuti, J., relative catalytic activity of several metals for the isotopic interchange reaction, H2O+ $HD \rightarrow HDO + H_2$, A., 1471.

and Murata, T., absolute single potential of [calomel] electrode, A., 292.

and Okamoto, G., interchange equilibrium between acetylene and heavy water, A., 935.

See also Okamoto, G.

Hirotani, T. See Funakubo, E.

Hirseh, J., relation between respiration and growth of aërobic bacteria, A., 897.

Hirsch, L., influence of ascorbic acid on glycogen content of liver of hyper-thyroidised guinea-pigs, A., 1567.

Hirsch, R. See Canciulesco, M. Hirsch, W. F. See Kormann, F. A. Hirschfelder, A. D., and Haury, V. G.,

clinical manifestations of high and low plasma-magnesium; danger of Epsom salt purgation, A., 633.

Hirschfelder, J., Eyring, H., and Rosen, N., calculation of energy of H₃ molecule, A., 411. Calculation of energy of H₃⁺ ion, A., 411.

Eyring, H., and Topley, B., reactions involving hydrogen molecules and atoms, A., 567.

See also Eyring, H.

Hirsehkind, W., Bender, H., and Great Western Electro-Chem. Co., ammonium phosphates and other salts, (P.), B., 101.

See also Barrett Co.

Hirschmann, H. See Rupe, H.

Hirsh, F. R., jun., enhancement of X-ray satellites by the Auger effect, A., 3. Relative energy of the La satellites excited by cathode rays in the atomic number range 47—52, A., 3. Enhancement of certain L- and M-series X-ray satellite lines by the Auger effect, A., 1169.

and Richtmyer, F. K., change in relative intensity of the satellites of La in the atomic number range 47-52, A., 128.

Hirshberg, J. See Bergmann, E. Hirshberg, Y. See Weizmann, C.

Hirst, A. A., coal-jigging, B., 1185. Hirst, E. L. See Ault, R. G., Harris, T. L.,

and Haworth, W. N. Hirst, F., canned cream, B., 952. Tin-plate containers [for foods], B, 1016.

Hirst, H. R., faults in wool fabries, B., 367.

Hirth, L. See Brückner, H. Hirwe, N. W., and Jambhekar, M. R., derivatives of salicylic acid. IX. Stability of the sulphonic acid group in 4-sulphosalicylic acid. I. Nitration of 4-sulphosalicylic acid. X. II. Bromination of 4-sulphosalicylic acid, A., 844.

Hisaw, F. L. See Fevold, H. L., and Greep, R. O.

Hiscox, E. R., and Harrison, $J_{\cdot,\cdot}$ determination of fatty acids in organic mixtures,

See also Mattick, A. T. R.

Hiscox, W. A., crushing and breaking apparatus for stone and similar materials, (P.), B., 304.

Hisey, W. O., and Koon, C. M., effect of p_H on rate of chlorine consumption in bleaching [wood pulp]. B., 980.
 Hishiyama, K., mordanting silk with chrom-

ium salts. VI., B., 638.

Hitch, E. F. See Du Pont de Nemours & ${\bf Co.,}\ E.\ I.$

Hitchcock, A. E., and Zimmerman, P. W.absorption and movement of synthetic growth-substances from soil as indicated by responses of aërial parts [of plants], A., 532. Effect of growth substances on rooting response of cuttings, A., 1035.

Sce also Zimmerman, P. W.

Hitchcock, D. I., measure of acidity obtained from the electromotive force of a cell without liquid junction, A., 800. Calculation of isoelectric zones and isoelectric points, A., 936.

and Dougan, R. B., dilatometric method for following hydrolysis of sucrose, A.

Hitchcock, F. A. See Enright, L. Hitchens, G. E. See Davis, W. F. Hitchens, R. M., and Towne, R. W., rate

of reaction of sodium sulphite with oxygen dissolved in water, A., 1073.

Hitt, M. V. See Du Pont de Nemours & Co., E. I.

Hitzenberger, K., and Roller, D., inhibition of coffee diuresis by milk and milk products, A., 625.
Hiwatashi, Y. See Yoshimura, K.
Hixon, R. M. See Fulmer, E. I., and

Werkman, C.H.Hixson, A. W., and Fain, J. M., emulsions

of thermoplastic materials, (P.), B., 510.

Hixson, E. See Sanborn, C. E. Hixson, O. F. See Cannon, H. J. Hjort, A. M. Sco DeBeer, E. J.

Hjorth-Hansen, S. See Hartelius, V.

Hladky, J. W. See Calingaert, G.

Hiasko, M., and Siemiaszko, A., mobility of bromine and iodine ions, A., 937. Hnevkovsky, O. See Hüttig, G. F.

Ho, K. See Wan, C. S.

Ho, P. C., and Wang, M. H., β -ray spectrum of radium-E, A., 1172.

Ho, T. L. See Goetz, A. Ho, T. S. See Tseng, C. L.

Hoagland, D. R. See Chandler, W. H. Hoagland, E. J., and Rutzler, J. E., jun., adsorption by diatomaceous filters, A., 423.

Hoagland, II., adaptation of cutaneous tactile receptors. VI. Inhibitory effects of potassium and calcium, A.,

and Rubin, M. A., adaptation of cutaneous tactile receptors. V. Release of potassium from frog skin by mechanical stimulation, A., 1291.

Hoar, T. P., corrosion of tinplate, B., 278. and Havenhand, D., rate of attack of mild steels by typical weak acid media, B., 743.

Hoare, F. E., diamagnetic susceptibility of heavy water, A., 672. See also Brindley, G. W.

Hoather, W. H., density and coefficient of expansion of liquid gallium over a wide range of temperature, A., 1330. Hobart, F. B. Sce Perkins, I. M.

Hobart Manufacturing Co., and Stark, R. E., aerating a liquid such as cream,

(P.), B., 176.

Hobbs, A. K., analysis of lime-sulphur solutions, B., 756.

Hobbs, H. G., zine ammonium chloride:

its place in modern galvanising, B.,

Hober, R., membranes as models of physiological objects; (permeability and salt absorption), A., 628.

Hobler, T. See Hydro Nitro Soc. Anon. Hobson, (Miss) P. M. See Taylor, T. W. J. Hoch, J., synthesis and chemical properties of a cthylenic carbimides, R.CH.CR. N.C.O, A., 63.

See also Ramart-Lucas, (Mme.) P.

Hochberger, E., and Canadian Internat. Paper Co., sulphite pulp, (P.), B., 96. Hocheisel, W. See Gerlach, A.

Hochfeld, H. A., action of the hormone of adrenal cortex on glycogen content of the liver, A., 249.

Hochofenwerk Lübeck Akt.-Ges., grey pig iron with low silicon content, (P.), B., 1100.

Hochschwender, E. See Standard-I. G. Co.

Hochstadt, O. See Fellinger, K. Hochstetter, F. W., and Treesdale Labs., Inc., compounding of flame- and waterproofing compositions for aqueous cellulosic media, (P.), B., 587.

Hochwald, A., allergy and vitamin-C, A., 1161.

See also Spitz, A.

Hochwald, F., secondary cells, (P.), B., 940.

Hochwalt, C. A., and Mead Res. Eng. Co., [iron-tannin pigments], (P.), B.,

Thomas, C. A., and Dybdal, E. C., hydrogenation of freshly-distilled spirits, B., 167.

See also Abrams, V. R., and Thomas, C. A.

Hock, A. L. Sec Spence, H. Hock, C. W. Sec Seifriz, W. Hock, H., Fischer, H., and Schrader, O., briquette research. III. Causes of water-instability of lignite briquettes and their avoidance, B., 817.

and Schrader, O., cyclohexene peroxide, A., 603.

Hock, L., and Becker, O., adsorption by agato powders in relation to artificial colouring of agates, A., 1195.

and Knauff, W., absorption spectra of solutions of iodine in carbon tetrachloride, titanium tetrachloride, and stannic chloride, A., 1177. Titanium.
1. Preparation of TiNCl, TiCl₄. II. Action of oxygen on titanium tetra-chloride under the influence of the silent electrical discharge. III. Formation of titanium di-iodide from titanium tetrachloride and potassium iodide, and attempts to convert it into titanium iodoform, A., 1218. Hockenyos, G. L. See Flint, W. P. Hockett, R. C., tetrose sugars. I. Crystal-

line triacetate of d-threese from degradation of strontium xylonate with hydrogen peroxide; nomenclature in the tetrose group. II. Degradation of d-xylose by Wohl's method; rotation of d-threose, A., 191. Hocking, F. D. M. See De Souza, D.

Hocking, G. M. See Christensen, B. V.

Hocking, R. O. See Butler, E. Hockley, C. F. See Bulkeley, C. A., and

Connolly, G. C.

Hocquette, M., properties of the secretion of Primula obconica, A., 911.

Hodge, E. B. See Hass, H. B. Hodge, H. C. See Bale, W. F.

Hodge, H. M. See Sherman, J. M.

Hodge, J. C., Christensen, M., and Babcock & Wilcox, Ltd., welding electrode, (P.), B., 282.

Hodge, L. M. See Wells, W. G. Hodges, P., and Gulf States Paper Corp., utilising "floating soap" and derivatives thereof, (P.), B., 270. Paint, varnish, and lacquer remover, (P.), B., 286. Metal-cleaning composition, (P.), B., 1046. Degreasing agent, (P.), B., 1046.

Rust inhibitor, (P.), B., 1046.
Hodgkiss, W. S. See Frear, D. E. H.
Hodgson, C. C., case-hardening steels, B.,

Hodgson, H. H., chemistry of naphthalene

derivatives, B., 1191. and Batty, W. E., metallic derivatives of 2-nitroso-5-methoxy- and 3-chloro-2-nitrose-5-methoxy-phenol, A., 67.

and Crook, J. H., reactions of 8-nitro-anaphthylamine and its derivatives, A., 1373. Nitrous acid as a nitrating and oxidising agent. III. Nitration of 4-dimethylaminoacoto-l-naphthalide, of 4-chloro-1-naphthyldimethylamine, and of β-naphthyldimethylamine, A., 1501. Preparation of 2:6-dinitro-pphenylenediamine, 2:6-dinitrotetramethyl-p-phenylenediamine, and 4-chloro-2:3-dinitroanisole, A., 1501.

Hodgson, H. H., and Elliott, R. L., salt formation of homonuclear naphthalene derivatives, A., 718. Preparation of certain 2:3 naphthalene derivatives, A., 1243.

and Smith, Ernest Walter, determination and purification of β -naphthylamino in presence of a-naphthylamine, and properties of some sulphonyl derivatives, A., 717.

See also Imperial Chem. Industries. Hodgson, T. H., liver glycogenase, A., 636. Hodler, D., masculinising action on the guinea-pig of water-soluble extracts of ox adrenal, A., 1031.

Hodnefield, O. T., treatment of brakelining and impregnating compound, (P.), B., 257.

Hodnett, L. Seo Seyer, W. F. Hodsman, H. J. See Hall, G. E., and Woolfenden, D. G.

Hodson, G. N., architectural terra-cetta and faience, B., 497. Brick road paving, B., 643.

Sco also Hickman, A. Hodson, W. D., lime-soap grease, (P.), B., 335, 750*. Wire-rope lubrication, (P.),

B., 1190. Höber, J. See Höber, R.

Höber, R., permeability of red blood corpuscles to organic anions, A., 874. and Höber, J., intestinal absorption of

amino acids, A., 1410.

Hoecker, F. E., dielectric constants of extremely dilute solutions, A., 1065. Hoefinghoff, W. See Hartmann, August.

Högel, L., and Allmänna Svenska Elektriska Aktieb., arrangement for [electric] heating of gases flowing through shafts, (P.), B., 156.

Högler, F., and Zell, F., posterior pituitary and carbohydrate metabolism, A., 251. Anterior pituitary and carbohydrate metabolism, A., 643.

Hoehne, E., additions to sulphuric acid in lead accumulators, B., 699.

Hoehne, K., arsenic, nickel, cobalt, silver, bismuth, and uranium ores in calcite veins in the Ricsengebirge, A., 816.

and Petrascheck, W. E., arsenie in upper carboniferous and permian sediments in Silesia and Bohemia, A., 1227.

Højendahl, K., dielectric constant for pure liquid and solid substances. I., A., 1321.

Hoek, C. P. van, free fatty acids [in lin-seed oil] and the "soap-formation theory," B., 557, 941.

Hoekstra, J., relation between elasticity

and plasticity of rubber, B., 1168.

Hölemann, P., change in refractivity and dispersion on transition from the vapour to the liquid state, A., 780. Adsorption of iodine on quartz glass at temperatures up to 1000°, A., 1334. See also Goldschmidt, II.

Hoelkeskamp, F., and Amer. Bemberg Corp., impregnation of textiles [for waterproofing], (P.), B., 315. [Delustred] artificial silk, (P.), B., 1202.

Höll, K., detection of lead in blood, A., 224. Chemical characteristics of some Jugoslavian lakes, A., 1226. Drinking-water supply in the island of Heligoland, and occurrence therein of water containing lead, B., 573. Removal of lead and copper from drinking water, B., 574. Purification of water containing lead, B., 957.

See also Danckwortt, P. W.

Hoelscher, A. P., effect of manganese and sulphur on mallcabilisation of white cast iren, B., 411.

Hölzl, F., formation of earbohydrate and fat from protein, A., 510.

Hönigschmid, O., at. wt. of erbium, A.,

and Menn, W., at. wt. of tungsten; analysis of tungsten hexachloride, A., 1440.

and Schlee, R., at. wt. of tantalum; analysis of tantalum pentachloride, A., 5. At. wt. of cadmium, A., 772. Fundamental at. wts.; ratio of silver nitrate to silver chloride, A., 1042.

and Wintersberger, K., at. wt. of german-II. Analysis of germanium tetrachloride, A., 657.

Wintersberger, K., and Wittner, F., at. wt. of germanium. I. Analysis of germanium tetrabromide, A., 5.

and Wittmann, G., at. wt. of molybdenum; analysis of molybdenum pentachloride, A., 1439.

and Wittner, F., at. wt. of uranium, A., 540.

See also Baxter, G. P.

Hönigschmid, R., and Liebseher, W., influence of hard water on metabolism of ruminants, B., 428.

Hoening, H., endless-belt dryers, B., 767. and Maschinenfabr. Imperial G.m.b.H., drying of raw material for papermaking, such as cellulose, wood pulp, etc., (P.), B., 982.

Hönl, H., magnetic moment of the proton, A., 1316.

See also Ewald, P. P.

Hoepfner, tar as binder for roadmaking, B., 132.

Hoeppener, M. See Antropoff, A. von. Hoerle, N. S. See Shaw, H. I.

Hoerner, M. T., buffer capacity of pancreatic juice, A., 1537. Effect exclusion of pancreatic secretion by a pancreatic fistula on reaction of gastric, duodenal, and jejeunal contents, A., 1537. Effect of exclusion of pancreatic secretion by evulsion of the pancreatic ducts on reaction of duodenal contents, A., 1537. Peptic ulcer following loss of pancreatic secretion through a fistula, À., 1542.

Hoernle, W. L., briquettes, (P.), B., 84. Hoesch, E. Sco Hofmann, Wilhelm. Hoesch, K. H. Sce Hiedemann, E.

Hoesch-Köln Neuessen Akt.-Ges. für Bergbau & Hüttenbetr., sheets, bands, and objects of metal for electrical purposes, (P.), B., 331.

Hösli, H. See Ruzicka, L.

Hoessle, C. H. von. Sce Chem. Fabr. von Heyden A.-G.

Hoesslin, H. von, growth in relation to nutrition, A., 1142.

Hestgaard, J., Knudsen, S., and Madsen, J., tallowy taste in milk, B., 952.

Hövelborn, C. See Marchionini, A. Hoeven, C. van der, detection and determination of sulphite-cellulose waste extract in vegetable-tannin extracts, B.,

Hofer, E., general form of the relation between exposure and photographic density by exposure to Röntgen rays, A., 943.

See also Breusch, F., and Przylecki, S. J. von.

Hoffbauer, F. W. See Greisheimer, E. M. Hoffer, O. See Chrétien, A.

Hoffert, W. H., and Claxton, G., motor-

benzol refining, B., 133. Claxton, G., and Hancock, E. G., restricted treatment of benzols with sulphuric acid before stabilisation with gum inhibitors, B., 727.

Hoffman, A. See Fuson, R. C.

Hoffman, C., Schweitzer, T. R., and Dalby, G., determination of milk solids in bread, B., 903.

Hoffman, E. J., oxidation and gas formation in spontaneous heating of hay, B., 297.

Hoffman, Everett J. See MacDougall, F. H.

Hoffman, G. C., and De Bourgogne, H., treatment of tissue paper, (P.), B., 1088. Hoffman, I., stability of aqueous solutions of potassium hydrogen phthalate, A., 469.

Hoffman, O. See Windheuser, C.

Hoffman, R. M., and Daniels, F., formation of vitamin-D by cathode rays, A., 1304. Hoffman, W. F., Hella, R. P., and Cellovis, Inc., centrifuge, (P.), B., 962.

Hoffmann, B., collision problems and con-

servation laws, A., 7.

Hoffmann, E. (Bochum), dependence of gas liberation on the petrographic constitution and degree of coalification of Ruhr coals, B., 771. Nomenclature and appearance of the constituents in bituminous coal petrography, B., 1025. Gas formation and gas conduction of coal from the Ruhr district, and its dependence on degree of carbonisation, petrographic texture, and the action of high pressures, B., 1136.

Hoffmann, E. (Moscow), automatic pipette for sedimentation analysis, A., 1481.

Hoffmann, Franz, acid-resistant linings of carbon, B., 316.

Hoffmann, Friedrich. See Anselmino, K.J. Hoffmann, F. P., and Amer. Porcelain Co., dental porcelain, (P.), B., 234.

Hoffmann, H., calcium ferrite hydrates, A., 1477.

Hoffmann, J., alteration of lead oxides by light and pressure, A., 1215. Chemical alteration of glasses by light and heat, B., 1093.

Hoffmann, J. I. See Lundell, G. E. F. Hoffmann, R. See Luther, R. Hoffmann, W. See Reichert, B.

Hoffmann-La Roche & Co., Akt.-Ges., F., stable solutions of diaminodihydroxyarsenobenzene and its derivatives, (P.), B., 220. Practically tasteless quinine compound, (P.), B., 220. N-Arylglucamines, (P.), B., 684. Deoxymorphine C and dihydrodeoxymorphine D, (P.), B., 1018. Dialkyl-substituted amides of isooxazolecarboxylic acids, (P.), B., 1084. Bee-venom, (P.), B., ì 129.

Hoffstadt, R. E., and Clark, W. M., antigenic structure of variants of Staphylococcus aureus. I. Carbohydrates of the rough and smooth forms, A., 1423.

and Youmans, G. P., antigenic reactions of Staphylococcus aureus and its variants, A., 1403.

Hofman, J. J., effect of drugs on the Schlesinger reaction for urobilin, A., 1552. Casein for pharmaceutical purposes, B., 523.

Hofmann, B., agalmatolith as material for reducing plasticity of refractory materials in the glass industry, B., 147.

Hofmann, E., determination of small amounts of carbon monoxide with the Dräger CO-meter, B., 396.

Hofmann, Eduard, hydrolysis of β-glucosides and conjugated glycuronic acids by enzymes of liver and kidney, A., 243. Specificity of glucosidases, A., 1024. Glucosidases of Schizosaccharomyces, A., 1558.

See also Neuberg, C.

Hofmann, H., and Amer. Bemberg Corp., spinning of cuprammonium filaments, (P.), B., 366.

Hofmann, H. E., Park, J. G., and Stanco, Inc., lacquer solvent, (P.), B., 653.

Hofmann, K. See Ruzicka, L.

Hofmann, U., and Wilm, D. [with Csalán, E.], crystal structure of carbon, A., 1053.

See also Podschus, E., and Wilm, D. Hofmann, Walter, structure of the latent

Röntgen [photographic] image, A., 171. Hofmann, Wilhelm, structure of stannous sulphide and teallite, A., 553. Structure determinations of the complex sulphides. I. Structure of tin sulphide SnS and teallite PbSnS₂. II. Crystal chemistry of the sulpho-salts of arsenic, antimony, and bismuth, A., 669. Thread diagram of lead alloys, A., 1193. Solubility of lithium in magnesium, A., 1194.

and Jäniche, W., structural type of aluminium boride (AlB2), A., 143, 413. and Schrader, A. [with Hoesch, E.], titanium carbide in grey cast iron, B., 1155.

and Volk, K. E., X-ray investigation of the transformations in aluminiumsilver alloys, A., 1061.

See also Halle, F.

Hofmeister, B., relationship between swelling pressure of coal and coke-oven operation, B., 1136.

Hofstetter, H. See Nord, F. F.

Hoftman, M. V., Aronov, S. G., and Michelson, E. M., freeing industrial gases from hydrogen sulphide with recovery of elemental sulphur, B., 6.

Aronov, S. G., Senitschenko, S. E., and Chvat, M. B., elimination of hydrogen sulphide from industrial gases, with recovery of elementary sulphur. IV., B., 965.

Hogaboom, G. B., nickel-plating, B., 1100. and Hanson-Van Winkle-Munning Co., electroplating sequence, (P.), B., 459.

Hogan, A. G., Guerrant, R. E., and Ritchie, W. S., anæmia caused by deaminised caseinogen, A., 1538.

Johnson, S. R., and Ashworth, U. S., rate of growth in relation to plane of

protein intake, A., 1410. and Richardson, L. R., differentiation of the antidermatitis factor, A., 529.

Hogan, M. E., jun. See Watson, W. W. Hogarth, J. W. See Dwyer, F. P.

Hoge, D. W., and Ritter, C. P., reforming of hydrocarbon compounds, (P.), B., 359.

Prevention of gum formation in cracked gasoline, (P.), B., 778.

Hoge, W. P. Seo Babcock, H. D.

Hogenson, W., and Chicago Vitreous Enamel Products Co., fused materials [enamels, glass, etc.], (P.), B., 60.

Hogg, A. R., bursts of cosmic radiation, A., 1046.

Hoggan, I. H., and Johnson, James, behaviour of ordinary tobacco mosaic virus in the soil, B., 613.

Hoggatt, G. A., and Certain-teed Products Corp., cementitious material, (P.), B., 277.

Hoglund, G. O., welding of aluminium

alloys, B., 1211.
Hogness, T. R., Wilson, T. L., and Johnson, W. C., thermal decomposition of silane, A., 295.

See also Bauer, S. H.

Hogson, W. T., textiles for musical instruments, B., 924.

Hohberg, F. See Voigt, H.

Hohorst, G., and Wen, S. P., recovery of alumina and fertilisers from Chinese alunite. II. Purifying alunite, B., 1150.

Hoke, W. W., and Westcott Electric Casting Corp., treatment of metals by electro-

magnetic forces, (P.), B., 939.

Hohlweg, W., and Dohrn, M., determin-

ation of vitamin-A by means of its influence on the vaginal contents of the rat. A., 904.

See also Schoeller, W.

Hoitink, A. W. J. H., simple, sensitive reaction for bilirubin in urine, A., 750.

Hōjō, G., carbon dioxide content of lymph under different conditions, A., 97. See also Araki, M.

Hojo, Y., lactic acid in peripheral lymph, A., 98.

Hoke, C. M., why metals stain the skin, B., 414.

Holbæk Tagpap og ·Cementvarefabrikker A./S. See Thomsen, T. C.

Holbeek, A. A., apparatus for breaking material, (P.), B., 960.

and Holbeck, H. F., pulverising machines,

(P.), B., 672. Holbeck, H. F. See Holbeck, A. A. Holbrook, H. E., and Wilson Co., H. A., [rhodium-osmium] alloy, (P.), B., 281.

Holbrook, W. F. See Joseph, T. L. Holde, D., mutual solubility of castor oil and benzine, B., 7. Spontaneous ignition of petrol and benzene, B., 178.

Holden, A. F., case-hardening composition,

(P.), B., 796.

Holden, F. See Rotter, G.

Holden, G. W., and Diver, G. R., new alkaloid and an acid salt from the self of the and an acid derived from the salt, A., 1277.

Holden, H. F., absorption spectra of some modified snake venoms, A., 1134.

and Setter, C. G., ultra-violet absorption spectra of snake venoms, A., 376.

Holden, J. See Halden & Co., Ltd., J. Holden, R., and Thurston, E. W., effects of cattle anterior pituitary extracts and potassium iodide on liver-glycogen in guinea-pigs, A., 900.

Holderby, J. M. See Warrick, L. F. Holdheide, W., influence of temperature on

suction force of soils, B., 209.

Holdsworth-Haines, \dot{W} ., essential oil industry of Seychelles, B., 44. Cinnamonbark oil of the Seychelles, B., 252. Cinnamon-leaf oil from the Seychelles, B., 348. [Essential] oil of Eucalyptus citriodora of the Seychelles, B., 523.

Holdt, C., oiticica [and tung] oil [varnishes], B., 703. Oiticica oil, B., 749.

Holgen, S., printing of coir [coconut-fibre] mats, B., 16. Holgersson, S. P. H. E., and Tibell, W. A. E., felting of paper-pulp fibres on wet part of paper and board-making machines, (P.), B., 15. Holiday, E. R., spectrophotometry of proteins. I. Absorption spectra of tryptophan, and their tyrosine, mixtures. II. Determination of tyrosine and tryptophan in proteins, A., 1528.

and Smith, F. C., Schubert-Dannmeyer test for cancer, A., 364.

See also Gulland, J. M.

Holl, F. W., dielectric constant of wool fibre, A., 549.

See also Haller, R.

Hollabangh, C. B., application of nitrocellulose emulsions to paper, B., 141.

Hollaender, A., and Duggar, B. M., irradiation of plant viruses and microorganisms with monochromatic light. III. Resistance of the virus of typical tobacco mosaic and E. coli to radiations of 3000—3250 A., A., 525.

Holland, A. J., and Turner, W. E. S., scratch-hardness of toughened plate glass, B., 20. Effect of width on breaking strength of sheet glass, B., 594. Breaking strength of glass; effect of flaws and scratches, B., 1152.

Holland, G., and Hinsberg, K., physiological significance of unsaturated fatty acids and the iodine-fixing power of the

blood, A., 1015. Holland, W. See Edwards, D.

Holland-Merten, E. L., influence of vacuum on choice and resistance towards corrosion of materials, B., 645.

Hollander, F., and Vesely, E., X-ray absorption coefficients of coronal and root dentine, A., 1533.

Hollard, A., treatment of bronze wastes for recovery of copper, tin, lead, and precious metals, (P.), B., 998.

Hollebeke, P. See Debrue, G.
Holleben, K. von, influences determining colour reproduction of grain mosaic

[colour] pictures, B., 1131.

Holley, C., and Bernstein, S., X-ray diffraction by a film of counted molecular layers, A., 539.

Holley, C. D., tint retention [in paints],

B., 205.

Holling, H. E., and Platt, R., mandelic acid and ammonium mandelate in treatment of urinary infections, A.,

Hollings, H. See Gas Light & Coke Co. Hollingsworth & Vose Co. See McClellan,

Hollósi, C., and Horváth, Z., hæmoglobin index and jaundice of the newborn, A., 365.

See also Horváth, Z.

Hollstein, E. See Schwarz, R.

Holm, B., and U.S. Rubber Co., artificial leather, (P.), B., 610.

Holm, J. M. See Imperial Chem. Industries. Holm, K. Sco Günther, P.

Holm, M. M., liquid butane as motor fuel; corrosion test, B., 866.

See also Standard Oil Co. of California. Holm, R., and Kirchstein, B., resistance of very thin films of foreign substances in metallic contacts, A., 144. Adhesion of two metallic surfaces in a vacuum, and diminution of adhesion in certain

gases, A., 672. Holman, H. E. See Blumlein, A. D. Holmberg, B., lignin. VIII. Thioglycollic acid as a reagent for lignin. XI. Pine wood and thiol acids, A., 340, 1515.

See also Heden, S.

Holmes, A., Collins, J. O., and Child, W. C., measurement of susceptibility of asphalts to temperature changes, B., 531.

Holmes, Arthur, contrasted differentiation. A., 1356.

and Paneth, F. A., helium ratios of rocks and minerals from the diamond pipes of South Africa, A., 817.

Holmes, A. D., and Pigott, M. G., effect of cold-pressing cod-liver oil on its chemical and physical characteristics, B., 1106.

Pigott, M. G., and Campbell, P. A., value of liver meal for poultry nutrition, B., 394.

Tripp, F., and Campbell, P. A., vitamin-A storago by chickens, A., 1428. Vita- $\min -\bar{A}$ reserve of embryo and baby chicks, A., 1566.

Holmes, C. E. See Halpin, J. G. Holmes, C. R., and Davis, J. D., kindling properties of eoke, B., 675.

Holmes, C. W. See Bramwell, I. L. Holmes, C. W. H., variables in a raw [coal] slack, B., 724.

Holmes, E., alleged occurrence of "Krampf-stoffe" in acctone extracts of tho mammalian brain, A., 499.

Holmes, E. L. See Adams, B. A., and

Morgan, (Sir) G. T.

Holmes, F. E., self-sealing vessels for storage of solutions used in the Van Slyke gasometric methods, A., 652. Sco also Cullen, G. E.

Holmes, F. T., Raman spectrum of crystalline ammonium chloride, A., 407. Holmes, (Miss) G. M. See Patterson, T. S. Holmes, H. H. See Berry, Wiggins & Co. Holmes, H. L. See Fieser, L. F. Holmes, H. N., and Bromund, W. H.,

bixin solutions as colorimetric standards for determination of carotene, A., 396.

Corbet, R. E., and Hartzler, E. R., lecithin and quinol as anti-oxidants for vitamin-A [in liver oils], B., 334.

Holmes, M. C., and Downs, \bar{R} ., sampling analysis, with application to coal, B., 1025. Holmes, R. L., corrosion-preventing system [for boilers, etc.], (P.), B., 960.

Holmes, R. S. See Byers, H. G. Holmes & Co., Ltd., W. C., Cooper, C., and Henshaw, D. M., purification of combustible gases, and particularly

coal-distillation gases, (P.), B., 180. Holmgren, H., variations of blood-sugar and influence of adrenaline and insulin, A., 223.

Holmquist, R. E. See Norris, W. V.

Holmqvist, A., bismuth electrode, A., 799. Holophane, Ltd., English, S., Everett, Edgcumbe & Co., Ltd., and Edgcumbe, K., photo-electric photometers, (P.), B., 845.

Holscher, H. H., minimum radius of curvature for enamelled parts, B., 102. Measurement and significance of enamel thickness, B., 1153.

Holser, E. F., heat transmission with high-boiling organic compounds, B., 767. Holst, Gilles, Druyvesteyn, M. J., De Boer,

J. H., Teves, M. C., and Radio Corp. of America, electric glow-discharge tube, (P.), B., 241.

Holst, Gustaf, oxidation-reduction poten-II. Investigation of coupled oxidation-reduction equilibrium photo-electric measurement of light extinction, A., 292.

Holst, J. F. van. See Universal Oil Products Co.

Holst, J. W., breakdown and conductivity of anodically oxidised aluminium, A., 565. Electrical properties of anodically oxidised aluminium, A., 1050.

Holstein, L. S., Stutz, G. F. A., and New Jersey Zinc Co., zinc sulphide [pigment], (P.), B., 1151.

Holt, D. A. See Du Pont de Nemours & Co., E. I.

Holt, F., handling and use of liquid chlorine,

B., 592.

Holt, H., jun. See Goodlass Wall & Lead Industries, and Oldham & Son.

Holt, H. S. See Du Pont de Nemours & Co., E. I.

Holt, L. C. See Daudt, H. W., and Du Pont de Nemours & Co., E. I. Holt, L. E., jun. See Tidwell, H. C.

Holt, N., lake colours and paper, B., 68. Holt, S. Sec Andrew, T. Holt, V. H., destroying growing bracken,

(P.), B., 1224.

colter, H., enzymic histochemistry.

XVIII. Localisation of peptidase in Holter, marine ova, A., 1404.

See also Linderstrøm-Lang, K.

Holthaus, C., critical investigation of methods of determining ash content of bituminous coals, B., 580.

Holtman, D. F., microbial content of soft wheat flour, B., 249.

Holtmann, W., drying zinc muffles, B., 840. Holtom, G. F. See Chaikoff, I. L.

Holton, A. B. See Gans, H. B., jun.

Holtz, F. See Arnold, O.

Holtz, P., ascorbic acid and diastase, A., 1023. Reduction and oxidation by ultra-violet irradiated sugar, A., 1094. Ascorbic acid as catalyst in oxidation of unsaturated fats, A., 1303. Induction effect of ascorbic acid on oxid-

ation of sugar, A., 1304. and Becker, J. P., action of X-rays on glucose, A., 1094.

Holtz, R., benzyl formate, A., 67.

Holtzmann, J., tyrosine metabolism of Bombyx mori (silkworm), A., 233.

Holub, L., Neubert, F., and Sauerwald, F., test of mass law on concentrated molten solutions by potential measurements, A.,

Holven, A. L., influence of pressure on b.-p. elevation of sucrose solutions, B., 711.

and Gillett, T. R., turbidity control, (P.), B., 49.

See also Gillett, T. R. Holwerda, B. J. See Dam, W. van.

Holwerda, K., colloid chemistry of edestin. II. Capillary-electric effects produced during peptisation of edestin by solutions of electrolytes, A., 158, 288. Salting-out and peptisation of edestin by mixtures of two salt solutions, A., 288.

Verkade, P. E., and De Willigen, A. H. A.hydrolysis rates of some monoacid triglycerides under the influence of pancreas extract. I. Influence of the fineness of division of the triglyceride on the hydrolysis rate, A., 297.

Holzberger, J., and Bohler Gebrüder & Co., A.-G., hard-metal alloy, (P.), B., 505. Holzhydrolyse Akt.-Ges. See Faerber, E. Holzman, E., and Suknarowski, S., analysis of acid sludge from mineral oil treat-

Holzman, M. See Sobotka, H.

ment, B., 83.

Holzner, J., calcium content of Thuringian iron ores, A., 816.

Holzrichter, H. See Alder, K.

Holzscheiter, C. G. Sec Bennek, H. Holzwarth, K., ozone for rapid drying of paints and varnishes, B., 942.

Home, J. H. See Mouchel & Partners, Ltd., L. G.

Home, L. C. See Stieglitz, C. R. von. Homer, W. J., and Associated Electric Labs., insulated wire, (P.), B., 699.

Homerberg, V. O., nitriding of cast iron,

Homeyer, A. H. Sec Wallingford, V. H. and Whitmore, F. C.

Homma, F., method of delineating a curve representing the manner of variation of chemical composition in a zoned plagioclase, A., 959. Homma, M., precious metals for pen nibs,

B., 326.

Hommel, O., and Enamelers Guild, Inc., enamel ware, (P.), B., 990.

Hommel Co., O. See Rosenberg, J. E. Homogene Permanent Packing, Ltd. See

Hall, F. R. Honda, K., quenching of steels and its

mechanism, B., 150. and Hirone, T., atomic theory of the magneto-caloric effect, A., 671.

Iwasé, K., and Sano, K., stability of cementite, A., 1332.

Masumoto, H., and Shirakawa, Y., magnetisation of single crystals of nickel at various temperatures, A., 145.

and Nishina, T., supposed dependence on temperature of spontaneous magnetisation, A., 554. Magnetie [ferronickel] alloys with high initial permeability, (P.), B., 1162.

and Tamaru, K., incubation of alloys, A.,

Honda, S. See Shikata, M.

Honess, A. P. Sce Young, G. H.

Honeywill & Stein, Ltd., and Wright, G. C., exfoliation of vermiculite, (P.), B., 932.

Hongo, S., lipins. I. Amounts of lecithin, total and free cholesterol, and cholesteryl ester in the organs of guinea-pigs fed on a vitamin-C-free diet and the ratio among these lipins. II. Relationship between oxidation in the animal body and the lipin contents of various organs, A., 95.

Honig, A. C., preparation of gold sol, A., 794.

Honsberg, K. See Brass, K.

Honza, B. See Glazunov, A.

Hood, E. G., casein-formalin treatment of butter boxes, B., 952.

Hood, H. P. See Corning Glass Works. Hood, N. R. See Imperial Chem. Industries. Hood, O. E., treatment of fresh concrete, (P.), B., 992.

Hoog, E. G. van't, aseptic culture of insects in vitamin research, A., 117.

Hoogerheide, J. C. See Kluyver, A. J. Hoogeveen, A. P. J., anti-gas clothing, B., 881.

Hook, I. T., copper-alloy welding, B., 1210. and Amer. Brass Co., welding-rod alloy,

(P.), B., 1000. Hook, W. See Clemo, G. R. Hooker, A. B. See Ilsley, L. C.

Hooker, A. H., and Hooker Electrochem. Co., reduction of [iron] contamination in [caustic soda] solutions, (P.), B., 987. Hooker, P., Lyster, T. L. B., Rue, J. D.,

and Hooker Electrochem. Co., means for reacting semi-fluid materials, (P.), B., 257.

Hooker, S. B., and Boyd, W. C., serological flocculation rate in the region of considerable antibody excess, A., 224.

Hooker, S. C., condensation of aldehydes with 2-hydroxy-1:4-naphthaquinone; synthesis of hydrolapachol, A., 1111. Action of light on 2-hydroxy-1:4-naphthaquinone, A., 1112. Oxidation of 2-hydroxy-1:4-naphthaquinone derivatives with alkaline potassium permanganate. [1. Mechanism], A., 1112. Lomatiol. II. Occurrence, constitution, relation to and conversion into lapachol; synthesis of lapachol, A., 1119. Constitution of lapachol and its derivatives. IV. Oxidation with potassium permanganate. V. Structure of Paterno's "isolapachone," A., 1119. and Fieser, L. F., Wichelhaus "di-β-

naphthaquinone oxide," A., 1112. and Steyermark, A., oxidation

2-hydroxy-1:4-naphthaquinone derivatives with alkaline potassium permanganate. II. Compounds with unsaturated side-chains, A., 1112. Lomatiol. III. Oxidation with alkaline potassium permanganate. IV. Violet quinone from the oxidation product, A., 1119. Conversion of ortho- into para- and of para- into ortho-quinone derivatives. IV. Synthesis of furan derivatives of a- and \beta-naphthaquinones, A., 1127.

Hooker Electrochemical Co. See Hooker, A. H., Hooker, P., Rue, J. D., Sconce, J. S., Scott, W. B., and Stuart, K. E. Hooley, J. G. Scc Archibald, E. H.

Hoon, F. See Molyneux, J. Hoon, R. C., conductometric method of

analysis applied to soil-survey work, B., 514.

and Taylor, E. M., $p_{\rm H}$ of suspensions of Punjab soils. I. Effect of concentration of the soil-water suspension. II. Variation with time, B., 562.

Hoopes, S. L. See Hellebrandt, F. A.

Hoops, L. See Kunz, K.
Hoos, B. G. See Schur, M. O.
Hoots, H. W., Blount, A. L., and Jones,

P. H., marine oil shale, source of oil in Playa del Rey field, California, A.,

Hoover, C. R., and Burr, F. K., distillery wastes; chemical and filtration studies, B., 350.

Hoover, G. R., and Amer. Rolling Mill Co., removal of unsaturated compounds from asphalt, (P.), B., 822.

Marshall, W. E., and Amer. Rolling Mill Co., treatment of galvanised sheets, (P.), B., 504.

Shafer, G. E., and Amer. Rolling Mill Co., testing [adhesion] of organic coatings, (P.), B., 1007.

Hoover, S. R. See Allison, F. E.

Hooykaas, R., natural classification of chemical substances, A., 1356.

Hope, E., insecticides, (P.), B., 222. Hope, Edward, and Anderson, J. S.,

complex benzoylation products of in-digotin; Höchst yellow U, A., 1523.

Hope, H. B., Moran, R. F., and Ploetz, A. O., rapid determination of titanium [in pigments], B., 243.

Ross, M., and Skelly, J. F., volumetric determination of indium, A., 304.

Hope, J. A., furnaces, (P.), B., 255. Hope, R. See Thomas, B.Hopf. See Marder, M.

Hopff, H., Nenitzescu, C. D., Isacescu, D. A., and Cantuniari, I. P., action of acetyl chloride and carbon monoxide on saturated hydrocarbons in presence of aluminium chloride, A., 1485.

Hopfield, J.J., extension of the absorption spectrum of the hydrogen molecule,

A., 1309.

Hopkins, B. S., chemistry of the rareearth group, A., 1349. Sec also Naeser, C. R., and West, D. H.

Hopkins, C. P. See Horne, J. W

Hopkins, (Sir) F. G., influence of chemical thought on biology, A., 1542.

[with Slater, B. R., and Millikan, G. A.], effect of incomplete diets on concentration of ascorbic acid in the rat's organs; identity of ascorbic acid and the reducing agent of rat's gut, A., 254.

and Morgan, E. J., relations between ascorbic acid and glutathione, A.,

Hopkins, H. G., surface structure of polished cleavage faces of calcite, A., 553.

Hopkins, Harris H. See Bennett, H. T. Hopkins, Horace H. See Du Pont de Nemours & Co., E. I. Hopkins, H. L. See Aluminum Co. of

America.

Hopkins, R. H., and Roberts, R. H., kinetics of alcoholic fermentation of sugars by brewer's yeast. Specificity rates of fermentation of α - and β -ghicose, A., 522.

See also Freeman, G. G.

Hopkins, R. K., construction of welded pressure vessels for the petroleum industry, B., 745. opkins, W. E. See Imperial Chem.

Hopkins, Industries.

Hopkinson, L. T., [fish meal] fertiliser, (P.), B., 661.

(F.), B., 601.

Hopmann, P. M. Sce Kalb, G.

Hoppe, H. See Zipf, K.

Hoppe, W., sun-burning [of basaltic rocks], A., 1087.

Hopper, W. S. See King, H. J. H.

Hoppmann, H., systemisation of chemical technology, R. 47.

technology, B., 47.
Hopton, G. U. See Gas Light & Coke Co.
Hopwood, F. L., and Phillips, J. T., chemical action caused by neutrons and y-rays and effects of these agents on colloids, A., 172.

Horak, J. J. See Quandt, H. L.

Horak, W. See Leopold, Heinrich, and

Lyle, A. K.

Horan, H. A., and Damiano, J. B., formation and composition of lithium aluminate, A., 172.

Horbury, S. H., dyeing of ramic and kapok, B., 98.

Horclois, R. See Dufraisse, C.

Hordh, U., eyanogenetic glucosides in food-stuffs, B., 251. Meat, yeast, and vegetable extracts, and their analytical differentiation, B., 568. Differentiation of natural conserves of fresh green peas from those of rewetted dried peas, B., 1124.

Horeau, A. Sec Delépine, M.

Horesh, A. J. See Gerstenberger, H. J. Horgan, E. S., ascorbic acid as a precursor of serum complement, A., 905.

Hori, G. See Matsumoto, N.

Hori, T., and Huruiti, J., isotope effect of ionised mercury hydride (Hg+H/Hg+D), A., 1168.

Horie, F., composition of Fushun shale oil. IX. Olefine hydrocarbons, boiling at 115-133°. X. Presence of m-xylene and isolation of pure n-octane. X. Composition of cuts distilling at 133-155°, B., 355, 626.

Horio, M. See Lauer, K.

Horiuchi, I., and Ohsako, F., detoxicating hormone of the liver. LV. Antithyroid action of yakriton, A., 645.

Horiuti, J., and Koyano, T., direct introduction of deuterium into benzene by high-frequency current, A., 299.

and Okamoto, G., change of isotopic composition of water by distillation, A., 38. Overvoltage and electrolytic separation of hydrogen isotopes, A., 430. Mechanism of catalytic interchange of hydrogen with water and alcohol, A., 1472.

and Polanyi, M., theory of proton transfer, A., 297.

and Sakamoto, Y., isotopie interchange reaction between chloroform and water, A., 1474.

Sce also Hirota, K., and Okamoto, G.

Horiuti, Y. See Fnjise, S.

Horkheimer, P., stabilisation of 0.1Nsodium thiosulphate solution, B., 144.

Hormisdas, colorimeter for a series of determinations, A., 954.

See also Riou, P.

Hormnth, R. See Kautsky, H.

Horn, A. See Durau, F. Horn, D. W., positive reaction of glass on o-tolidine, A., 1242.

Horn, F., degradation of dimethylaniline and its oxide in the animal body, A., 514. Degradation of dimethylaniline in herbivora, A., 1290.

Horn, H. A., welding of zinc sheet, B., 889. Horn, M. J., Nelson, E. M., and Jones, D. B., toxic wheat grown on soils containing selenium, B., 515.

Horn, V., Weber, J., and Jungermann, K., feeding whole soya beans to fattening pigs, B., 428.

Horne, J. W., and Hopkins, C. P., insecticide, etc., (P.), B., 117. Horne, W. T., and Palmer, D. F., control

of Dothiorella rot on avocado fruits, B., 248.

Hornel, J. C., and Butler, J. A. V., rates of some acid- and base-catalysed reactions, and dissociation constants of weak acids in "heavy" water, A., 1346. Hornemann, H. C., and Nat. Dairy Products

Corp., pasteurising and deodorising [lactic] liquids, (P.), B., 1016.

See also Hammer, B. W. Horner, C. K. See Burk, D.

Horner, G. M., relation of degree of saturation of a colloidal clay by calcium to growth, nodulation, and composition of soya beans, B., 612. See also Vandecaveye, S. C.

Hornibrook, F. B., Kalousek, G. L., and Jumper, C. H., effects of partial pre-hydration and different curing temperatures on properties of cement and concrete, B., 791.

Hornig, A. W., laminating glass, (P.), B.,

694.

Horning, E. S. See Cramer, W. Horninger, G., granite of Schärding [Upper Austria], A., 48.

Hornstein, P., wrapper paper for cigars, cigarettes, etc., (P.), B., 1147.
Hornuff, G. von. See Scholl, R.
Hornus, G. See Levaditi, C.

Hornus, G. J. P., and Enders, J. F., soluble specific substances of pneumococcus type III possessing properties distinct from SSS III, A., 1561.

Horny, H. See Kailan, A.

Horovitz-Vlassova, L. M., and Livschitz, M. J., action of microbes on fats, A.,

Rovenskaja, E. M., and Andrievskaja, E. G., preparation of fruit and berry wines by means of suitable pure cultures, B., 40.

Horr, W. H., utilisation of galactose by Aspergillus niger and Pcnicillium glau-

cum, A., 1421.

Horridge, R. See Bury Rubber Co. Horrobin, S. See Davies, O. L. Horrocks, II. See James, R. W.

Horrod, J., logwood dyes for wool, B., 787. Horsburgh, G. D. L. See Swift, Levick & Sons.

Horsfall, F. L., jun. See Goodner, K.
Horsfall, J. G. See Arnold, E. L.
Horsley, L. II. See Beck, Guido.
Horssen, W. B. van, nitration of benz-

anilide and its derivatives, A., 843.

Horst, D. T. J. ter. See Ornstein, L. S. Horst, (Miss) M. G. ter, spreading of ovalbumin, A., 284. Optical activity of derivatives of quadrivalent tellurium containing two identical negative radi-

cals. II., A., 1280. Horst, W. P. ter, and Industrial Rayon Corp., pickling of ferrous metals, (P.),

B., 891.

Horton, B. T. See Bargen, J. A. Horton, E. A. See Watson, S. J. Horton, L., Williams, F. A., and King,

J. G., action of hydrogen on coal. II. Early experiments with the Bergius process, B., 305.

Horvath, A. A., refining of soya oil to preservo its food value, B., 203. Acceptance of soya-bean flour depends on correct processing, B., 759. Soyabean oil for soap-making, B., 1004. See also Yant, W.P.

Horváth, I., composition of Szeged edelsüss-paprika milling products, B., 42. Horváth, Z., and Hollósi, C., birth pains and

blood of the new-born, A., 354. Sec also Hollósi, C.

Horvitz, G. J., apparatus for expulsion of

acid gas from a solution containing a soluble acid salt of the gas, (P.), B., 3. Recovery of acid gases [from flue gases], (P.), B., 19.

Horvitz, L. See Schlesinger, H. I. Horwitt, M. K. See Nims, L. F. Hoschek, E. See Klemm, W.

Hosemann, R., radioactivity of samarium, A., 657. Soft recoil radiation effects of cosmic rays, A., 919.

Hosford, G. N., and Hicks, A. M., p_H of tears: relation to certain ocular symptoms and to conjunctival and corneal lesions, A., 1536.

Hoshina, K., changes produced in spiro-chetes of relapsing fever by action of pharmacological reagents. III. Effect of pyridine and its alkyl derivatives, A., 1156.

Hoshino, T., and Kobayashi, Teinosuke, synthetic experiments on eserine. V. Synthesis of *l*-escrethole, A., 488.

and Shimodaira, K., synthesis in the indole group. XV. Synthesis of bufotenin methyl ether (5-methoxy-NN-dimethyltryptamine) and bufotenin, A., 862.

Hoshino, T., and Takiura, K., synthesis of alkoxy- and hydroxy-carbazoles, A., 863.

Hoshizima, T., influence of bile acids on calcium metabolism. XII. Tetany and blood-calcium in thyroparathyroidectomised dogs, A., 516.

Hosking, J. R., diterpene alcohol from the wood of Dacrydium biforme. II. Ozonisation of manool, A., 729.

and Brandt, C. W., toxic principle of ragwort (Scnecio jacabæa, L.). I., A., 652. Chemistry of the genus Dacrydium. I. Resin of D. Colensoi. II. Diterpene alcohol from D. biforme wood, A., 1115.

Hosking, J. S., determination of cobalt, nickel, copper, and zine in soil extracts, B., 851.

Hoskins, M. M., relation of diet and scrumcalcium to tetany in the parathyroidectomised rat, A., 232.

Hoskins, R. G., and Freeman, Harry, weight changes following the use of glycerol extract of adrenal cortex, A., 1563.

and Gottlieb, J. S., is the pressor effect of a glycerol extract of adrenal glands due to adrenaline? A., 900.

Hoskins, W. M., and Ferris, C. A., analysis for fluoride; application to determination of spray residue on food products, B., 251.

and Wampler, E. L., factors concerned in deposit of sprays. II. Effect of electrostatic charge on deposit of lead arsenate, B., 1116.

See also Hensill, G. S., and Kitchel, R. L. Hosoda, K., black soils of Japan. I. Their unproductiveness, B., 657.

Hosoki, Y. See Kitagawa, M.

Hosoya, S., Kagabe, K., Tanaka, T., and Momma, A., nature of diphtheria toxin: pulverulent purified anatoxin; purified, powdered toxin, A., 224, 641.

Kuwashima, Y., Kayo, S., Oda, M., and Kagabe, K., isolation of the growth factor of pathogenic bacteria, A.,

Hospes, B., purity quotient during manufacture of potato starch, B., 39.

Hotchkiss, J. F., application of latex [to

fabrics], B., 17.

Hotchkiss, R. D., and Goebel, W. F., synthesis of aldobionic acid of gum acacia, A., 824. Synthesis of the hepta-acetyl methyl ester of gentiobiuronic acid, A., 824. Derivatives of glycuronic acid. VII. Synthesis of aldobionic acids, A., 1231.

and Johnson, T. B., pyrimidines. CLI. Constitution of dibarbituric acid, A.,

616.

Hothersall, A. W., and Bradshaw, W. N., detinning tinplate for examination of thickness and continuity of the alloy layer, B., 698.

and Prytherch, J. C., origin of porosity in tin coating of tinplate, B., 698.

Hotta, K., and Kawaji, M., colorimetric determination of cholesterol in liver oil, A., 499.

Hotte, G. H. See Schwarz, E. R. Hottel, H. C., Meyer, F. W., and Stewart, I., temperature in industrial furnaces, B., 767.

See also Drew, T. B. Hotzel, J. See Merz, W.

Hou, H. C., ascorbic acid content of certain organs of chicks raised on vitamin-Cdeficient ration, A., 255. Content of vitamin-A in Hunan lachiao, Capsicum annuum, L., var. longum, A., 764.

Hou, H. C., content of vitamin-C in Hunan lachiao, Capsicum annuum, L., var. longum, A., 764. Chemical and biological assay of vitamin-C, A., 766. Relation between antiscorbutic activity and mode of administration of ascorbic acid, A., 1032. Destruction of ascorbic acid in water, A., 1160. Variation of vitamin-C content in certain fruits and vegetables, B., 953.

Hou, K. W., micro-determination of carbamide in very diluto solutions, A.,

Houang Li. See under Li Houang.

Houben, J., Boedler, J., and Fischer, W., formation of organo-magnesium halides and their behaviour towards halogen acids, their ammonium and amino salts, and towards anilino, A., 1097.

and Pfankuch, E., racomisation and camphone transformation, A., 729.

and Zivadinovitsch, R., imidocarbonic osters, iminothio-, oximinothio-, and dithio-formic osters, A., 1495.

Houchins, H. R. Seo Benner, R. C. Houdinière, A., presence of acetone in beef,

A., 748. Houdremont, E., corrosion-testing of steels

at high temperatures, B., 196. and Kallen, H., lightly-alloyed nickelfree constructional steel, B., 196.

and Schafmeister, P., intercrystalline corrosion of steels, B., 150.

and Schrader, H., judging purity of steel by deep-etching, B., 323.

Houdry, E., and Houdry Process Corp., temperature exchange between a catalytic mass in course of regeneration and a cooling [hydrocarbon] liquid, (P.), B.,

Houdry Process Corporation, temperatureregulating apparatus [for catalyst masses], (P.), B., 816.

See also Houdry, E., and Joseph, A. Hougen, O. A., silk degumming. III. Rate of boiling-off silk hosicry, B., 363. See also Mennerich, F. A.

Houget, J. Sec Cahn, T. Hough, G. J., colorimetric determination of manganese [in soils] in presence of titanium, B., 114.
Hough, W. S., codling-moth sprays and

problems connected with removal of residues, B., 247. Removal of arsenical

and lead spray residues, B., 392. Houghton, C. M. See Houghton, L. E. Houghton, H. W., and Safety Fumigant Co., volatile fumigant package, (P.), B., 478. Houghton, L. E., and Houghton, C. M., mechanical filter, (P.), B., 816.

Houghton, R. Sec Cope, W. F. Houghton & Co., E. F. See Hanusch, H. Houpt, C. S., method and apparatus for

de-enamelling, B., 408. Hourigan, H. F., determination of tin in alloys with antimony and lead (antimony less than 2%), A., 813. Housel, E. L. See Cantarow, A.

Houssay, B. A., effect of hypophysectomy on pregnancy and lacteal secretion in the bitch, A., 117. Lacteal secretion provoked by anterior pituitary extract in the dog, A., 117.

and Leloir, L. F., diabetogenic anterior pituitary action independent of the

adrenals, A., 117.

Houston, D. F., solubility of calcium β-methylbutyrate in water, A., 1333. and Saylor, C. P., centrifugal filtration tube, A., 1085.

Houston, IV. V., forces between nuclear particles, A., 1175. See also Kinsler, L. E.

Houstoun, R. A., characteristic curve of the photographic plate, B., 717.

Houtermans, F. G. See Fomin, V. Houwink, R., high elasticity of threedimensionally polymerised amorphous materials in relation to their internal structure, A., 276. Strength and modulus of clasticity of amorphous materials, related to their internal structure, A., 276. Practical measurement of hardening velocity of resins, B., 286. Elasticity and plasticity of paints and lacquers, B., 1005. Synthetic resins, their formation, clastic and plastic properties, and possibilities, B., 1108. Structure of the rubber macromolecule as related to elastic properties of rubber, B., 1112.

See also Klaassens, K. H.

Hovers, J. See Pieters, H. A. J. Hovers, T., Koopmans, H., and Pieters, H. A. J., partial hydrogenation of coal, B., 965.

Hovey, A. G. See Beck, Koller & Co. How, H. W., indirect heating and circulating system for sulphite[-pulp] digesters,

(P.), B., 636.
How, T. G. See Shrum, G. H.
Howald, A. M., and Toledo Synthetic Products, Inc., [urea-formaldehyde mouldable] resin, (P.), B., 1110. Drying [tho] reaction product of ureas and aldehydes, (P.), B., 1110. [Glassy ureaformaldehyde] resinous materials, (P.), B., 1110.

Howard, (Sir) A., manufacture of humus by the Indore process, B., 34.

See also West, E. S.

Howard, F. A. Sco Standard Oil Development Co.

Howard, F. C. Sco Swann, S., jun.

Howard, G., [recovery of products from] waste sulphite [cellulose] liquor, B., 830.

Howard, G. E., and Hartford-Empire Co., glass, (P.), B., 147.

Howard, H. C. See Juettner, B., and Smith, R. C.

Howard, J. B., principal magnetic susceptibilities of K₃Fc(CN)₆, A., 148. See also Timm, J. A., and Wilson,

E. B., jun.

Howard, J. C. See Millar, W. J.

Howard, J. K. R. See McConnel, F. W. Howard, J. W., addition of chloroform and bromoform to p-ehlorobenzaldehyde, A., 201.

and Brown, R. J., cyclohexyltrichloromethylcarbinel, A., 1374.

Howard, N. J., water-quality deterioration in distribution systems, B., 1070.

Howard, S. See Imperial Chem. Industries. Howards & Sons, Ltd., Smola, A., and Haakh, H., trichloromethyloxyarylcarbinols and [hydr]oxyacids and [hydr]oxyaldehydes therefrom, (P.), B., 685.

Howarth, A. See Jackson, J. M. Howarth, J. E., textile-finishing trades

from a chemical engineering viewpoint, B., 58.

Howarth, J. P., Pearsall, W. H., and Wright, R., changes in the nitrogenous fractions in stored apples, A., 908.

Howat, D. D., thermal diagram for system ferrous sulphide-cuprous sulphido; determination of dissociation pressures of iron sulphides, A., 564.

Howat, G. R., and Wright, N. C., heat-coagulation of caseinogen. II. Rate of phosphorus cleavage, A., 1139.
Howden, P. Sec Brit. "Rema" Manufg.

Co.

Howe, A. F., centrifugal drying machine, (P.), B., 961.

Howe, A. H. D., apparatus for [flue-]gas analyses, (P.), B., 353.

Howe, E. E. See Fellows, R. L.

Howe, J. D., and Purcell, E. M., making extremely thin films, Λ ., 1085.

See also Lark-Horovitz, K., and Yearian,

Howe, J. P., and Noyes, W. A., jun., photochemical studies. XXIII. Photochemical decomposition of acctone vapour near 1900 A., A., 1215.

Howe, M. A., and Sullivan, B., minerals of wheat. II. Determination of sodium and potassium, B., 343.

Howell, E. T. See Du Pont de Nemours & Co., E. I.

Howell, F. M., and Paul, D. A., properties of wrought aluminium alloys at elevated temperatures, B., 64.

Howell, H. G., absorption spectrum of lead oxide (PbO), A., 661. Emission spectrum of bismuth fluoride, A., 1047. Ground state vibrational frequencies, A., 1052. Vibrational frequencies of molecules, A., 1324.

Howell, O. R., and Jackson, Albert, change in absorption spectrum of cobalt chloride in aqueous hydrochloric acid solution with change of temperature, A., 1047. Absorption spectrum of cobalt chloride in presence of magnesium chloride in aqueous solution, A., 1443.

and Robinson, H. G. B., electrical conductivities of aqueous solutions of sodium dodecyl sulphate and sodium hexadecyl sulphate at different tem-

peratures, A., 1205.

Howell, S. F. Sce Sumner, J. B.

Howell, W. N., and Robertson, A., syntheses of 1-phenylnaphthalenes, A., 835. Howes, D. A. See Dunstan, A. E.

Howes, H. A. See Eddy, N. B., and

Krueger, Hugo.

Howes, R. T., Mumper, H., and Cruickshank, L., preparation of dry carbon dioxide, (P.), B., 233.

Howes, W. See Burris, S. J., jun.

Howes Co., Inc., S., apparatus for scouring and cleaning granular material, (P.), B., 769.

Howland, L. II., and U.S. Rubber Co., [preservative] treatment of rubber, (P.), B., 1221.

See also Belvedere Chem. Co.

Howland, S. W. See under Guggenheim Bros. Howlett, L. E., photo-electric photometer, A., 581.

Howroyd, McArthur & Co., Ltd., and Croad, R. B., [catalysts for synthetic resin] varnishes, (P.), B., 69. Howson, C. E. See Johnson, Alfred.

Hoxton, L. G., speed control for small

direct-current motors, A., 1224. Hoyer, D. G., effect of sunlight on [pyrethrum] fly sprays, B., 117. Effect of

metals on fly sprays, B., 254. and Leonard, M. D., toxicity of rotenone

powders, B., 387.

and Weed, A., "pyrocatechin" as a protecting agent for active principles of pyrethrnm in finished flysprays and concentrates, B., 1133.

Hoyer, F., uso of bitumen emulsions in the paper industry, B., 880.

Hoyos, J. See Lissák, K.

Hoyos de Castro, A. See Del Campo, A. Hoyt, F. H., detecting iron in alloy equipment, B., 793.

Hoyt, \hat{H} . \hat{C} ., and Lindsay, G. A., demonstrating and measuring approximately the index of refraction of crystalline substances for X-rays, A., 697.

Hoyt, S. L., new resistor alloy; chromiumaluminium-iron, B., 547.

Archer, R. S., and Smith Corp., A. O., heat-resistant [iron] alloy, (P.), B.,

Hoyt, W. See Stowell, E. R. Hoyt, W. D., motor fuel, (P.), B., 681.

Hozoe, T., colouring matter in wood of "Hinoki" tree. I. Hinokitin and hino-

ktitol, A., 857. Hradecky, C. Sec Adler, P. Hrubetz, M. C., blood-sugar level after administration of pilocarpine, atropine, and acetylcholine, A., 1416.

See also Dotti, L. B. Hruska, R., machine for production, by chemical means, of explanatory titles for pictures on kinematograph films, (P.), B., 525.

Hruszek, H., cholesterol content of serum and its cholesterolytic power in vitro

in skin disease, A., 1016.

Hrynakowski, K., Staszewski, H., and Szmytówna, M., molecular compounds of benzidine with certain phenols and acids, A., 199. Solid-liquid equilibria in binary and ternary systems in which mixed crystals are formed. (1) Camphor-bromecamphor. (2) Camphor-bromocamphor-borneol, A., 1204.

and Szmytówna, M., solid-liquid equilibria in ternary systems in which incongruently melting compounds are formed. III., A., 290. p-Toluidine in binary systems with certain phenols, A., 931. Decomposition of a binary molecular compound in a ternary system; systems: XI. Salicylic acid-salipyrine-thymol. XII. Salicylic Α., acid-antipyrine-thymol, 999. Thermal equilibrium in ternary systems. XIII. Tetramorphism of ammonium nitrate in the ternary system with carbamide and resorcinol, A., 1070. Solid-liquid equilibria in systems of organic components. Systems consisting of o-, m-, and paminophenol, A., 1340.

Hsia, T. C. See Lee, F. H.

Hsieh, C. Y., iron deposits of Southern

Anhui, A., 449. Hsieh, T. Y. Sce Huston, R. C.

Hsieh, Y. M., and Chang, W. Y., properties of baked soapstones, B., 837.
See also Hsü, T. Y., and Hsü, Y. K.

Hsing, C. Y., and Adams, Roger, relative rates of racemisation of substituted diamides of 6:6'-dimethoxydiphenic acid. XLII., A., 723.

Hsiung, K. H. See Chao, T. P. Hsiung, S. Y. See King, K. Y. Hsu, J. H., fine structure of the absorption band of water vapour at 0.94 μ , A., 545. Hsü, C. F., Hai-jen-tsao (Digenia simplex,

Ag), A., 534.
[with Wang, G. H., and Lu, T. W.], alkaloids of Hanfangchi. II. Hanfangchin B., A., 217. Hsü, E. I. F. See Tuan, H. C.

Hsu, P. C., and Adolph, W. H., effect of sodium glutamate on digestion, A., 633.

Hsü, S. K., Ingold, C. K., and Wilson, Christopher L., optical activity in relation to tautomeric change. V. Kinetic status of ionic intermediates in prototropy, A., 717.

and Wilson, Christopher L., optical activity in relation to tautomeric change. VI. Comparison of the rates of racemisation and of bromination of a ketone, A., 804.

Hsü, T. T. See Tuan, H. C. Hsü, T. Y., and Hsieh, Y. M., electrical insulation of tung oil, B., 1000.

and Kwei, C. T., polarisation and electric moment of tung oil, B., 1000.

Hsü, Y. K., and Hsieh, Y. M., emanation content of hot springs and artesian wells in the Peiping area, A., 1226. Sec also Band, W.

Hsung, M.C. See King, L.P. Huang, H.T. See Wilson, S.D.

Huang, M., alkaloids of Chinese Corydalis tubers; (Corydalis ambigua, "Yen-Hu-So "), A., 1131.

Huang, T. C., effect of pressure on passivity of iron powder in alkali medium, A.,

Lin, F., and Fu, C. Y., Joule-Thomson coefficient of carbon monoxide, A., 930. Joule-Thomson coefficient of oxides of earbon, A., 1331.

Huang, W. W., characteristics of Pearl River water, A., 448.

Huang, Y. T. See Chi, Y. F., and Chuang,

Hubacher, M. H., o-nitrophenylsulphur (o - nitrobenzenesulphenyl chloride

chloride), A., 600. and Kreighbaum, H. S., ether acid ester of [esters of alkoxy-acids and] polyhydric alcohols [plasticisers], (P.), B.,

Hubault, E., toxic action on river fish of certain hydrocarbons present in industrial waste waters, B., 1022.

Hubbard, D. M. See Henne, A. L. Hubbard, D. O. See Claffin, H. C. Hubbard, M. See Inman, O. L.

Hubbard, R. S. Sco Garbutt, H. R., and Lockie, L. M.Hubbard, W. S. See Siebenburg, W.

Hubbell, D. S. See Young, J. H.

Hubbell, R. B. See Mendel, L. B.

Hubbueh, L. P. See Du Pont de Nemours & Co., E. I. Huber, E. See Seidl, F.

Huber, J., influence of carbon dioxide in

beer on pasteurisation pressure, B., 295. Huber, K., somatoids. II. Influence of other dissolved constituents on the forms exhibited by monobasic aluminium sulphite. III. Topochemical reactions on aluminium sulphito somatoids, A., 173. See also Ruzicka, L.

Huber, L. J. See Schroeder, C. H. Huber Corporation, J. M. See Eagles, R. H.

Hubertus, R. See Agde, G.

Hubrová, M.K. See Tomiček, O. Hucker, G.J. See Bowers, C.S.

Huddle, H. B., oil of Tennessee red cedar, B., 334.

Hudig, J., soil improvers, (P.), B., 517. Hudihira, S. See Nagano, M. Hudita, T. See Fujiwara, Takeo.

Hudleston, L. J. See Rees, A. G.

Hudson, A. See Carter, W. H. N.

Hudson, C. S. See Hann, R. M., Jackson, E. L., and Roe, J. H.

Hudson, H. E., jun., filter-washing experiments at the Chicago experimental fil-

tration plant, B., 126.

Hudson, J. C., Vogt, H. G., and Armstrong, A. H., K-series spectrum of thorium, A., 3. New lines in the K series spectrum of tungsten, A., 1311. Hudson, J. H. See Eastman Kodak Co.,

and Sheppard, S. E.

Hudson, P. C. B. See Davies, William. Hueber, E. F. See Hicks, C. S.

Hübner, H. See Karrer, P.

Hübsch, O., principle and construction of a flour-testing device, B., 519.

Hückel, E., Thomson's theory of condensation on ions, A., 400. Significance of the new quantum theory in chemistry, A., 1324. Theory of binary solutions, A., 1463.

Huelsen, W. A., and Gillis, M. C., fertiliser requirements of sweet maize, B., 292.

Hülsmann, H., and Weibke, F., lower cobalt sulphides; equilibrium diagram of system Co-CoS, A., 797.

Hülsmann, O. See Biltz, W., and Juza, R. Hünerfeld, G., gaseous metabolism of small animals, A., 629.
Hueper, W. C., organic effects of hydraz-

ine derivatives, A., 373. Ætiological studies on formation of skin blisters in viscose workers, A., 1414. See also Oettingen, W. F. von, and

Wiley, F. H.

Huerre, R., cuprous iodide, A., 809. Hürter, J. See Werle, E. Hüttel, R. See Wieland, H.

Hüttig, G. F., active oxides. CIII. Course of reactions in which solid substances take part, A., 1474.

Cassirer, S., and Strotzer, E., active oxides. LXXXXV. Influence of various gases on reaction between zinc oxide and chromium trioxido, A., 686.

Ehrenberg, M., and Kittel, H., active oxides. XCVI. Temperature increments of intermediate processes in combination of zinc oxide with ferric oxide, A., 1216.

Funke, J., and Kittel, H., change of magnetic and catalytic properties during transformation of a mixture of calcium oxide and ferric oxide into

calcium ferrite, A., 298. and Neumann, K., active oxides. C. Sorptive capacities of the active states through which needle iron ore passes during dehydration, A., 1195.

Sieber, G., and Kittel, H., active oxides. LXXXVII. Active states of the systems cadmium oxide-iron oxide and beryllium oxide-iron oxide with regard to their catalytic activity in decomposition of nitrous oxides, A.,

and Strotzer, E. [with Hnevkovsky, O., and Kittel, H.], active oxides. XCIII. Intermediate active states in decomposition of needle iron ore into airon oxide and water vapour, A.,

and Zeidler, E., active oxides. XCIX. Solubilities of a mixture of magnesium and ferric oxides during ageing, A., 790.

See also Rosenkranz, E.

Huey, H. I., Russell, W. W., and Sayles Finishing Plants, Inc., viscose coating and filling [of fabries], (P.), B., 1090.

Huf, E., active water and salt transport through frog's skin, A., 1547.

Huff, G. C., and Boell, E. J., ultracentrifugation and oxygen consumption of the eggs of Ascaris suum, Goeze, A., 1542.

Huff, L. C. See Universal Oil Products Co. Huffman, C. F., and Duncan, C. W., vitamin-D studies in cattle. I. Antirachitic value of hay in the ration of dairy cattle. II. Vitamin-D-sparing action of magnesium, B., 346.

See also Long, J. W. Huffman, E. E. See Barthélemy, H. L. Huffman, E. O., and Cameron, F. K., utilisation of alunite through fusion with alkali sulphides, B., 693.

Huffman, H. M., Ellis, É. L., and Fox, S. W., thermal data. VI. Heats of combustion and free energies of seven organic compounds containing nitrogen, A., 1341.

Huffman, J. F. See Wahl, M. H.

Huffman, J. R., thermal decomposition of acetone, A., 1344.

See also Standard Oil Development Co.,

and Urey, H. C.

Hug, E., elimination of sodium formaldehydesulphoxylate by the kidneys, A., 373. Determination of sodium formaldehydesulphoxylato in bloodplasma, A., 497. Curves of sodium formaldehydesulphoxylate in the blood after intravenous or intragastric administration, A., 513.

and De Meio, R. H., determination of glucose and chlorides in urines containing sodium formaldehydesulph-

oxylate, A., 363. Hugel, E. J., application of physical chemistry in purification of raw sugar juices, B., 211.

Huggett, A. St. G., and Suffolk, S. F., trypanocidal action of azo-dyes, A., 524. Huggett, M. C., and Research, thermal insulation, (P.), B., 255, 1023.

Huggins, M. L., molecular constants and potential energy curves for diatomic molecules. II., A., 781. Hydrogen bridges in ice and liquid water, A., 1202. Hughes, Archibald. See Toohey, E. A.

Hughes, Arthur, surface phenomena; films, A., 1458.

Hughes, A. E. See Liverpool Electric Cable Co.

Hughes, A. L., and West, S. S., scattering of fast electrons by helium, A., 1170. Hughes, C. H., and Semet-Solvay Eng.

Corp., water-gas carburettor, (P.), B., 729. Hughes, E., magnetic characteristics of nickel-iron alloys with alternating mag-

netising forces, B., 1050.

Hughes, E. B. See Norman, P. J.

Hughes, E. C. See Standard Oil Co.

Hughes, E. D., and Ingold, C. K., olefine elimination, A., 702.

Ingold, C. K., and Scott, A. D., unimolecular elimination and significance of electrical conduction, racemisation, and halogen replacement of organic halides in solution, A., 1090. Ingold, C. K., and Shapiro, U. G.,

mechanism of substitution at a carbon atom. VI. Hydrolysis of isopropyl bromide, A., 433.

Juliusburger, F., Scott, A. D., Topley, B., and Weiss, J., aliphatic substitution and the Walden inversion, A., 1239.

Hughes, E. D., and Kuriyan, K. I., influence of poles and polar linkings on the course pursued by elimination reactions. XXIII. Stable derivatives of the tercovalent carbon compound of Ingold and Jessop, A., 62. Le Fèvre, (Mrs.) C. G., and Le Fèvre,

R. J. W., spatial configuration of fluorene and its derivatives, A., 927. See also Anantakrishnan, S. V., and

Cowdrey, W. A.
Hughes, E. H., calcium and inorganic phosphorus content of blood-serum of swine, A., 1530. Hughes, E. I., assay of organic medicinal

preparations containing arsenic, B., 859.

Hughes, G., photography of minima in the magneto-optic apparatus, A., 1481. and Goslin, R., photography of minima in magneto-optic apparatus, A., 1084.

Hughes, J. O., solutions of cellulose derivatives in organic solvents, (P.), B., 943.

and Thomas, T. R., solutions of cellulose derivatives in organic solvents, (P.), B., 943.

Hughes, J. S., Scott, H. M., and Antelyes, J., location of the anti-enzyme in egg-white, A., 1152. See also Aubel, C. E., Bogart, R., and

Riddell, W. H.

Hughes, J. W., [apparatus for] moulding plastic substances, (P.), B., 560.

Hughes, L. M., recovery of tin, (P.), B., 938.

Hughes, R., metallurgy, metals, and the

winery, B., 951.

Hughes, T. F., practical pointers in bleaching cotton and cotton-rayon fabrics, B., 366. Hughes, T. P., Parker, R. F., and Rivers,

T. M., immunological and chemical investigations of vaccine virus. II. Analysis of elementary bodies of vac-

cinia, A., 1424. Hughes, T. W., corrosion of underground gas mains and services, B., 434.

Hughes, W. C., Wilson, H. N., and Bosan-quet, C. H., determination of naphthalene in tetrahydronaphthalene, B., 404.

Hughes Industries Co., Ltd. See Crespinel, W. T.

Hughes-Mitchell Processes, Inc., ment [chloridising] or ores, (P.), B., 937.

See also Mitchell, T. A., and Sessions, R. L.

Huguenin, R., Truhaut, R., and Sannié, C., azotæmia and elevation of the alkaline reserve in course of anuria, A., 99.

Hugues, E, and Bouffard, E, ripeness of grapes, B., 810.

Huitema, R., and Brown, G. W., tin vanadate as catalyst in oxidation of toluene to benzoic acid, A., 686.

Hukui, Y., mechanism of the origin of alimentary hyperglycæmia, A., 496. Hull, D. C. Sec Eastman Kodak Co.

Hull, D. E., Shiflett, C. H., and Lind, S. C., exchange reactions of iodine by the method of radioactive indicators, 576. Exchange between sodium · iodide and ethyl iodide, A., 1349.

Hull, G. F., discussion of experiments on time-lag in the magneto-optic effect, A., 13.

See also Watson, W. W.

Hull, R. A., manometer of small volume, A., 815.

Hull, R. B., crystal structure of tetrahydrated nickelous acetate, A., 413.

Hull, R. O., and Strausser, P. W. C., dropping tests for electroplates, B., 415. Hulme, A. C., nitrogen metabolism of the

apple fruit. II., A., 531. and Roach, W. A., nitrogen metabolism of the apple fruit. III., A., 1305.

Hulme, H. R., interaction of two particles, A., 774.

Mott, N. F., Oppenheimer, F., and Taylor, H. M., internal conversion coefficient for y-rays, A., 1172. See also Jaeger, J. C.

Hulssen, C. J. van. See Kögl, F. Hulst, L. J. N. van der. See Harberts, (Mile.) C. L., and Henriquez, P. C. Hultgren, R., X-ray study of symmetrical

trinitrotoluene and cyclotrimethylenenitroamine, A., 274.

and Warren, B. E., crystal structure of black phosphorus, A., 1325.

Sec also Gingrich, N. S.

Hulthèn, E. See Heimer, A.

Hulthen, L., antiferromagnetic exchange problem at low temperature, A., 671.

Hultin, C. T. See Mann, C. A.

Hultman, E. W., and Hultman & Powell Corp., chemical treatment of hydro-carbon oils, (P.), B., 136. Oxidation of hydrocarbons, (P.), B., 136. Treatment of hydrocarbons, (P.), B., 136. Hultman, G. H., and Pilo, C. W., purific-

ation of gases containing hydrogen sulphide from hydrogen sulphide, (P.),

B., 53.

Hultman & Powell Corporation. Hultman, E. W.

Hulton, H. F. E., determination of preservative value of English hops, B., 389. Hultquist, M. E., and Poe, C. F., optical

crystallographic study of some derivatives of barbital and luminal, A., 211.

Hulubei, H., K spectra of molybdenum and rhodium, A., 399. Element 87, A., 917. L Spectra of radium (88), A., 1169, 1311. Feeble emissions in the L spectrum of radium (88), A., 1438.

Humberstone, J. II. See Gen. Electric Co. Humboldt-Deutzmotoren Akt.-Ges., stone

crushers, (P.), B., 3. Humby, A. J. D. See Reavell & Co. Hume, E. M., determination of vitamin-A,

A., 528. and Chick, H., standardisation and determination of vitamin-A, A., 764.

Hume, R. H., and Creedy, L. D., casehardening [of steel], (P.), B., 842. Hume, W. R., and Hume Steel, Ltd.,

electric are welding, (P.), B., 1214

Hume-Rothery, W., theory of equilibrium in alloys. I., A., 1455.
Hume Steel, Ltd. See Hume, W. R.

Hummel, F., resonance method of determining dielectric constants, A., 1418.

Hummel, J. N., determination of activity of rocks with the tube counter, A., 186. Resolving power in recording of coincidence by two counters arranged behind one another, A., 446.

Hummell, F. C. Sco Hunscher, H. A. Humphrey, B. J., determination of guanidines in rubber stocks and consumption of guanidines during vulcanisation, B., 802.

Humphrey, C. D. See Jewsons, Ltd. Humphrey, I. W. See Hercules Powder

Humphrey, J. W., Pedlow, J. W., and Viscose Co., increasing tensile properties of viscose rayon, (P.), B., 1201.

Humphreys, C. J., third spectrum of xenon, A., 1168. Third spectrum of krypton, A., 1310.

Humphreys, R. F., and Fredrickson, W. R., pressure effect on the C band of strontium ĥydride, A., 1317.

Humphreys, R. L. See Standard Oil Co. of California.

Humphries, E. C. See Clark, C. H. D. Hun, O., cryoscopic determination of the total hydration of potassium iodide ions, A., 797.

See also Bourion, F.

Hund, F., theory of electron motion in non-metallic crystal lattices, A., 138. State of electrons in crystal lattices, A., 142. Symmetry of a crystal lattice and its electron levels, A., 667. Hund, W. J. See Bataafsche Petroleum

Maats, and Shell Development Co. Hundertmark, H. Sec Quaschning, C. G.

Hundt & Weber G.m.b.H., apparatus for filtering gases, vapours, air, or liquids, (P.), B., 816.

Hungarian Rubber Goods Factory, Ltd., manufacture of rubber thread, (P.), B., 706.

and Ehrmann, C., gas masks, (P.), B., Hungerford, C., and Hungerford & Terry

Inc., [sand] filter, (P.), B., 81. Hungerford, E. H. See Nees, A. R.

Hungerford & Terry, Inc. See Hungerford, C.

Hungerland, H., changes in blood-sugar content after ligation of arteries, A., 1008.

Hunicke, C. C., and Wagner, C. L., concentration of waste liquors [of pulp

industry], (P.), B., 366. Hunsaker, C. H., and Fotofrost, Inc., plantprotective process and material, (P.), B.,

Hunscher, H. A., Cope, F., Sternberger, H. R., Erickson, B. N., and Macy, I. G., continuous nitrogen and mineral balances during pregnancy, puerperium, and lactation, A., 237

Hummell, F. C., Erickson, B. N., and Macy, I. G., metabolism of women during the reproductive cycle. VI. Continuous nitrogen utilisation of a multipara during pregnancy, parturition, puerperium, and lactation, A.,

Hunsdiecker, H., plastic masses, paints, and

lacquers, (P.), B., 608.

Hunt, A. J. See Smokeless Combustion

Hunt, A. P. See MacLachlan, J. C.

Hunt, C. H., Record, P. R., and Bethke, R. M., effect of stage of maturity and method of curing on vitamin- B_1 , and -B2 contents of lucerne, clover, and timothy hays, B., 251.

Hunt, F. B., and Liquid Carbonic Corp., [liquid] carbon dioxide, (P.), B., 453. Liquid and solid carbon dioxide, (P.), B., 593.

Hunt, H., Chittum, J. F., and Grubb, H. M., polarisation discharges in multiple electrode systems, A., 431. See also Chittum, J. F., and Grubb, H. M.,

Hunt, M. Seo Du Vigneaud, V. Hunt, M. H. Seo Westinghouse Electric &

Mannig. Co.

Hunt & Co., E. See Beken, F. Huntenburg, W., neutral substances formed in Tschitschibabin's synthesis of βcollidine, A., 612.

Huntenburg, W., is the methyl group attached to the benzene nucleus positivo or negativo? A., 1239. Exact detection of hydroxymethylfurfuraldehyde in sweet wines, B., 808.

Hunter, A., and Pearse, R. W. B., sensitivity of photographic plates in the region 2500—2100 A., B., 860.

Hunter, A. S., measuring lustre of rayon yarns, B., 1146.

Hunter, D., calcium and phosphorus metabolism in generalised diseases of bones, A., 751.

Hunter, E., and Allmand, A. J., thermodynamic study of systems of the type PbCl₂-RCl-H₂O at 25°. V., A., 429.

Hunter, F. A. See Wunderle, C. Hunter, G., new cleavage product of guanine, A., 487. Test for thymine: keto-enolic type of diazo-test, A., 744. 4- (or 5-)Guanidinoglyoxalino and 4- (or 5-)carbamidoglyoxaline from guanine, A., 999. Hydrolysis of guanino, A., 1000.

Hunter, J. E., Marble, D. R., and Knadel, H. C., vegetable protein in turkey rations, B., 618.

See also Guerrant, N. B. Hunter, J. S., photo-electric activity of iron and its oxides, A., 548.

Hunter, L., and Marriott, J. A., substituted cyclohexyl nitrites, A., 460.

See also Elkins, (Miss) M.

Hunter, M. A., and Driver-Harris Co., alloy [for electric-resistance element], (P.), B., 377.

Hunter, R. F., absorption spectra of

tautomeric selenazoles, A., 267.

and Parken, E. R., unsaturation and tautomeric mobility of heterocyclic VI. Mobility of 5compounds. substituted '1-hydroxybenzthiazoles, and the ultra-violet absorption of mobilo and static derivatives of 1-hydroxybenzthiazole, A., 214.

and Samuel, R., valency and molecular structure, A., 1324. Transition of covalency to electrovalency, A., 1324. See also Bukhsh, M. W., Desai, R. D., and Hasan, U.

Hunter, R. S., gloss comparator, B., 623. Gloss investigations using reflected

images of a target pattern, B., 719. Hunter, T. G., and Nash, A. W., computations for countercurrent solventprocesses, B., extraction Chemical-engineering design of solventextraction units for refining lubricating oil, B., 775.

See also Nash, A. W., and Mayo, F. Hunter, W. H., and Stone, L. F., organic

depolarisers, A., 32. and Yackel, E. C., derivatives of 1:3diketohydrindeno, A., 1255.

Huntington, H. B. Seo Wigner, E.

Huntoon, R. D., and Ellett, A., ionisation gauge for atomio beam measurements, Ä., 582.

Huntress, E. H., and Atkinson, E. R., constitution of isomeric dichlorofluorenonecarboxylie acids formed by action of sulphuric acid on 3:3'-dichloro-

diphenic acid, A., 1377.

Hunwicke, R. F., solutions of pollen and other vegetable cells, (P.), B., 1177. Solution of bacteria, pollen, or other

vegetable cells, (P.), B., 1177. Huppert, O., biodynamics of the ψ -proteins; chemotherapy of carcinoma by redox substances from osteocolla, A., 364.

Hurd, C. B., silicie acid gels. VI. Influenco of temperature and acid on the time of set, A., 288.

and Griffeth, R. L., silicic acid gels. V. Determination of $p_{\rm II}$ of gel mixtures, A., 28.

Hurd, C. D., and Christ, R. E., ozonisation of triple linkings, A., 1359.

Goodyear, G. H., and Goldsby, A. R., thermal rearrangements of pentenes, A., 451.

Jones, Ralph N., and Blunck, F. II., reaction of ketens with Grignard reagents, A., 204.

and Lui, S. C., vinyldiazomethane, A.,

and Pollack, M.A., m-2-xylyl a-naphthylcarbamate, A., 329.

and Thomas, C. L., preparation of dibenzyl and benzyl methyl ketones, A., 1110.

and Webb, C. N., effect of halogen substituents on rearrangement of aryl alkyl others. I. Ethers which rearrange normally, A., 980.

and Williams, Jonathan W., keten and acetylketen, A., 967.

Hurd, L. C., determination of rhenium. I. Qualitative, A., 304.

and Allen, H. O., colorimetric determination of molybdenum; variables involved, A., 44.

and Babler, B. J., determination of rhenium. II. Geilmann reaction, A.,

and Clark, A. R., determination of motallic copper in cuprous oxidecupric oxide mixtures, A., 1353.

Colchour, J. K., and Cohen, P. P., toxicity of potassium perrhenate, A., 517.

See also Schwoegler, E.J.

Hurd-Karrer, A. M., inhibition of arsenic injury to plants by phosphorus, B., 611. Inhibiting effect of sulphur in selenised soil on toxicity of wheat to rats, B., 1011

and Poos, F. W., toxicity of seleniumcontaining plants to aphids, A., 1554.

Hurel, L. See Verdier, J. Hurgin, J. See Seljakov, N.

Hurlbut, C. S., jun., dark inclusions in a tonalite of Southern California, A., 50.

Hurlbut, F. J., producer-gas plant in glass manufacture, B., 275.

Hurley, F. H., jun., borax as an acidimetrie standard, A., 949.

Hurley, J., experiments on a trade sewage, B., 302.

Hurlston, E. H., "substitute" in rubber

manufacture, B., 32. Hurran, W. J. See Hatt, H. H.

Hursh, J. B., effect of carbon monoxide on recovery of frog skeletal muscle, A.,

Hurst, C. See Booth, E. T. Hurst, D. A. See Billings, H. P. Hurst, D. G. See Watson, W. H.

Hurst, J. E., comparison of properties of molybdenum-alloy cast-iron and chromium-alloy cast-iron automobileengine cylinders, B., 547.

and Bradley & Foster, cast-iron castings surface-hardened or hardenable by the nitrogen-hardening process, (P.), B., 280.

See also Evans, N. L.

Hurt, R. H., insecticides and fungicides, (P.), B., 468.

Huruiti, J. See Hori, T.

Hurxthal, A. O., and Proetor & Schwartz, Inc., apparatus for handling, drying, and processing materials, (P.), B., 129.

Husa, W. J., and Huyck, C. L., drug extraction. VII. Effect of method of packing on efficiency of percolation. VIII. Effect of maceration and rate of flow on efficiency of percolation. IX. Efficiency of re-percolation for belladonna root and nux vomica, B., 475, 857, 858.

and Magid, L., drug extraction. V. Extraction of belladonna root with glycerolic menstrua. VI. Determination of pressure exerted during percolation, B., 123, 475.

Husain, M. A., Puri, A. N., and Trehan, K. N., cell sap acidity and incidence of white-fly (Bemesia gossypiperda) on cottons, A., 768.

Huscher, M.E. See Dow Chem. Co. Husemann, E. See Staudinger, H.Husimi, K. See Kikuchi, Soishi.

Hussain, A. See Singh, J. Hussain, M. See Basu, S., and Bukhsh, M. W.

Hussain, S. L., and Samuel, R., absorption spectra of halides and oxyhalides of sulphur, selenium, and tellurium, A., 775. Hussey, A. V., [influence of calcium on

decay of wood], B., 792. Hussmann, J. F., soil reaction and suitability of milk for cheese-making, B., 168. Husson, G., oxidation of open-hearth slags and their formation during furnace operations, B., 741.

Hustin, A. See Dulière, W. L.

Huston, R. C., and Hsieh, T. Y., condensation of aliphatic alcohols with aromatic compounds in presence of aluminium chloride. I., A., 602.

and Neley, A. H., halogenation of phenolsulphonic acids in nitrobenzene, A.,

Hutcheson, W. W., and Mason, W. C., evaporators for concentration of milk, (P.), B., 673.

See also Mason, W. C.

Hutchings, I.J. See Waksman, S. A. Hutchings, L. R. See McLean, R. C. Hutchins, J. W., tentering [cotton and rayon] fabrics for printing, B., 451.

Hutchinson, J. B. See Bassett, H.Hutchinson, J. C. D., and Morris, S., digestibility of dietary protein in the ruminant. I. Endogenous nitrogen excretion on a low-nitrogen diet and in starvation. II. Digestibility of protein following a prolonged fast, A., 1410.

Hutchinson, J. E. See Gnmmert, J. S. Hutchinson, A. W. See Scholl, A. W. Hutchinson, G. F. See Spaeth, C. P.

Hutchison, R., nutrition question, A., 628 Hutchison, T., and Scottish Agricultural Industries, coating of granular materials

with powder, (P.), B., 48. Hutchison, W. K. Sco Gas Light & Coke

Hutchisson, E., effect of an electrostatic field on rate of vaporisation, A., 1170. Huther, F. See Lowry, T. M. Hutino, K. See Sakurada, I.

Hutt, F. B., and Boyd, W. L., idiopathic hypoparathyroidism and tetany in the fowl, A., 250.

Hutton, C. O., Morven meteorite, New Zealand, A., 584.

Hutton, D. See Du Pont de Nemours & Co., E. I.

Hutton, M. K. See Daniels, A. L. Hutton, W. A., and Hutton & Co., W. A.,

powdered soap, (P.), B., 108.

Hutton & Co., W. A. See Hutton, W. A.

Huxford, W. S. See Cashman, R. J.

Huxham, T. S. See Electrical Research

Products.

Huyck, C. L. Sco Husa, W. J. Hveding, J. Sco Hansen, Klaus. Hveding, J. A., recent developments in reaction kinetics, especially gas explosions, A., 684.

Hvidberg, I., regulation of liquid flow by capillary tubes, A., 182.

Hyatt, J. B., humidity control; ozonisation; deaeration of fruit juices-some laboratory improvisations, B., 761.

Hybinette, A. G. See Hägg, G.

Hyde, E.H. Sec Rhodes, E.O. Hyde, J.F. Sec Corning Glass Works. Hyden, W. L., and Du Pont Cellophane Co.,

wrapping material, (P.), B., 786. Fonda, J. S., and Du Pont Rayon Co., production of artificial silk [of subdued lustre], (P.), B., 927.

Hydrawerke Akt.-Ges., and Gorniak, K., electrolytic condensers, (P.), B., 1214.

Hydro Nitro Société Anonyme, and Hobler, T., highly concentrated nitric acid, (P.), B., 1036.

Hydronaphthene Corporation. Sco Schrauth,

Hye, M. A. See Carbery, M.

Hygrade Sylvania Corporation, treatment of a graphite body, (P.), B., 179. See also Marsden, C. P.

Hykeš, O. V., and Diakov, F. A., antagonistic effect of iodides in baldness and toxicity due to thallium acetate, A., 893.

Hylleraas, E. A., calculation of rotation energy constants of molecules from a formula and its application to calculation

of dissociation energies, A., 667. Hyman, J., and Greenfield, T., causo of " crystallisation " of tung oil vehicles, B., 335.

and Velsicol Corp., shellao substitute, (P.), B., 654. Rubber plasticiser, (P.), B., 753. Oxidised hydrocarbons, (P.), B., 778. Gasproof [tung oil] varnish, (P.), B., 895. Product for use as germicide, fungicide, or insecticide, (P.), B., 1238.

Hynes, L. J., strawberry ice cream, B., 953. Hynes, W. A., Malko, M. G., and Yanowski, L. K., dotermination of ferroeyanide ion by means of luteocobaltammine chlorido, A., 1353.

Hynson, Westcott & Dunning, Inc. See Dunning, F.

Hyslop, J. F., chemical activity of refractories, B., 595.

I.

I.A.C. See under Industria Articoli Caoutchouc.

I.C.I. See under Imperial Chemical Industries.

*I. G. Farbenind. A.-G., abrasives, (P.), B., 455. Acetals of polyvinyl alcohol, (P.), B., 1193. Acetaldehyde, (P.), B., 1142. Acetaldehyde from acetylene, (P.), B., *I. G. Farbenind. A .- G .- continued.

633. Acetaldehyde from acetylene containing hydrogen, (P.), B., 824. Conversion products of acetylene, (P.), B., 971. Polymerisation products of acetylone, (P.), B., 138, 632. Acridinium compounds, (P.), B., 1018. Acylated polyalkylenepolyamines, (P.), B., 1195. Adhesives, (P.), B., 1010. Purification of alcohols, (P.), B., 919. Aldehydes of the indole series, (P.), B., 140. Substituted aldols, (P.), B., 182. Aliphatically of the indole series, (P.), B., 182. aromatic compounds [long-chain alkylbenzenes and their sulphonic acids], (P.), B., 1195. Stable, highly concentrated preparations containing alkali hydrosulphides, (P.), B., 494. Alkyl halides, (P.), B., 1140. Alkylamines, (P.), B., 89. isoAlloxazine compounds, (P.), B., 363. [Alloy] lining of apparatus for use when reacting carbon monoxide with hydrogen at elevated temperature and under pressure, (P.), B., 1212. Improving resistance to corroding agents of aluminium-base alloys, (P.), B., 505, 1163. Stable aluminium salts, (P.), B., 834. Substituted acid amides, (P.), B., 182. Amines, (P.), B., 55, 138. [Higher aliphatic] amines, (P.), B., 139. tert.-Amines of high mol. wt., (P.), B., 55. Aminoazaphenanthrenes, (P.), B., 1144. Substituted aromatic amino-compounds, (P.), B., 488. Substituted aromatic amino-compounds [oalkoxyarylamines], (P.), B., 139. Aminocompounds of the quinolino series, (P.), B., 92. [Aryl] aminoalkyl sulphones, (P.), B., 1196. Aminoalkylsulphonic acids, (P.), B., 683. Alkylated and aralkylated polyaminoanthraquinones, (P.), B., 537. 2-Aminoanthraquinonesulphonic acids, (P.), B., 825. o-Amino-azo-dyes, (P.), B., 733. Aminocarboxylic acids of capillary action, B., 859. Substituted aminochrysenes, (P.), B., 874. Aminochrysenesulphonic acids, (P.), B., 974. [3-]Aminopyrenesulphonic acids, (P.), B., 974. 3-Aminoquinoline derivatives, (P.), B., 876. Amino-sulphones, (P.), B., 1196. Aminosulphonic acids, (P.), B., 1142. Aminotrifluoromethylarylsulphonic acids, (P.), B., 974. Ammonium nitrate having a low weight per unit volume, (P.), B., 494. Ammonium sulphate in the form of scales, (P.), B., 1037. Coarsely-crystalline ammonium sulphate, (P.), B., 273, 494. Quaternary ammonium compounds, (P.), B., 90, 780. Quaternary ammonium compounds of derivatives of the anthracene series, (P.), B., 140. Quaternary ammonium compounds and preserving and disinfecting media containing the same, (P.), B., 360. Disinfecting media containing quaternary ammonium compounds, (P.), B., 90. Stable preparations of anæsthetic agents, (P.), B., 171. Stable preparations of anæsthetic [and vaso-constricting] agents, (P.), B., 1017. Stable aqueous solutions of anæsthetic substances [alkamine aminobenzoates], (P.), B., 907. Viscous solutions of salts of anæsthetic substances with hydroxycarboxylic acids, (P.), B., 252. Aqueous dispersions of anhydrides of fatty acids of high mol. wt., (P.), B., 1081. Stable suspensions of animal-tissue cells, (P.), B., 299. Anthraquinone compounds

*I. G. Farbenind. A .- G .- continued. [dyes] containing nitrogen, (P.), B., 1144. Anthraquinone derivatives, (P.), B., 766, 780, 878. Derivatives of anthraquinone series, (P.), B., 976. Anthraquinone [acid wool] dyes, (P.), B., 923. [Anthraquinone] vat dyes, (P.), B., 489. [Anthraquinone] vat dyes containing two thiaz-ole rings, (P.), B., 362. Anti-halation layers and filter layers, (P.), B., 813. Aromatic or heterocyclic carboxylic acid amides of high mol. wt., (P.), B., 875. Aroylbiurets, (P.), B., 90. Arsenobenzenesulphoxylates, (P.), B., 1018, 1180. Aryl[am]ides from 4-hydroxydiphenyl-3-carboxylic acid and of azo-dyes therefrom [ice colours and pigments], (P.) B., 229. Condensation products [arylaminohydroxybenzenes], (P.), B., 780. Autotype copying processes, (P.), B., 1133. Diaphragm for use in autotype copying processes, (P.), B., 1133. Halftone screen for antotype copying processes, (P.), B., 1133. Azo-dyes, (P.), cesses, (P.), B., 1133. Azo-dyes, (P.), B., 229, 266, 361, 446, 585, 687, 733, 825, 922, 1144. Azo-dyes and dyeing and printing preparations, (P.), B., 537. Azo-dyes and metallic compounds thereof, (P.), B., 826. Azo-dyes [pig-monts and ice colours]. (P.), B., 977. ments and ice colours], (P.), B., 977. Azo-dyes [for acetate silk], (P.), B., 877, 878, 923, 977. Azo-dyes especially suitable for printing acetate artificial silk, (P.), B., 361. [Acid] azo-dyes, (P.), B., 781, 877, 977. Azo-dyes containing chromium, (P.), B., 688, 922. [Chromable] azo-dyes, (P.), B., 781, 1033. Azodyes on cotton pieco goods, (P.), B., 638. [Direct] azo-dyes, (P.), B., 781. Ethylene azo-dyes, (P.), B., 55. Azo-dyes on the fibre [ice colours], (P.), B., 877. Azo-dyes [ice colours] on animal fibres, (P.), B., 1089. Preparation of impregnating baths for producing azo-dyes on textile fibres, (P.), B., 590. Azo-dyes [for leather], (P.), B., 878. Azo-dyes containing metals, (P.), B., 230, 922. Water-insoluble azo-dyes, (P.), B., 266, 362, 825. Water-insoluble azo-dyes [pigments and ice colours], (P.), B., 56, 687, 978, 1144. Water-insoluble azo-dyes [pigments and ice colours] and intermediate products therefor, (P.), B., 781. Water-insoluble azo-dyes on wool materials, (P.), B., 691, 981. Azo-dyes [for wool], etc., (P.), B., 977. Chromo-complex compounds of azo-dyes, (P.), B., 446. Intermediate products for [azo]dyes [3-hydroxycarbazole-2-carboxylic arylamides], (P.), B., 976. Heavy-metal complex compounds of azo-dyes, (P.),

Binding agents for road construction, (P.), B., 597. Binding agents for road surfaces, (P.), B., 410. Bleaching of bast fibres, (P.), B., 929. Bloodserum for diagnostic purposes, (P.), B., 299. Blood-sugar-reducing substance from urine, (P.), B., 954. Products from boron fluoride and oxyacids of phosphorus, (P.), B., 1207. 3-Bromo-2-aminoanthraquinonesulphonic acid, (P.), B., 825. Derivatives of N-butylaminobenzene, (P.), B., 91.

Capillary activity agents [wetting, etc. agents], (P.), B., 975. Stabilisation of carbamic acid chlorides, (P.), B., 824. Carbocyanine dyes, (P.), B., 140, 184.

*I. G. Farbenind. A .- G .- continued. Carbon black, (P.), B., 968. Preheating

of carbonaceous materials prior to destructive hydrogenation and similar conversion processes, (P.), B., 1031. Thermal treatment of carbonaceous substances, (P.). B., 135. Carrying out catalytic reactions, (P.), B., 1078. Nitrogenous cellulose derivatives, (P.), B., 269. Compositions comprising cellulose esters, (P.), B., 652. [Anti-crease] treatment of cellulose fibres, (P.), B., 984. Derivatives of chrysenequinones, (P.), B., 139. Compounds of the chrysencquinone series [vat dyes], (P.), B., 1145. Coating and filling materials, (P.), B., 337. [Coating] compositions containing chlorinated rubber, (P.), B., 34. Coating of light metals with chlorinated rubber, (P.), B., 656. Testing of protective coatings, (P.), B., 69. Compounds of the coroxene and corbioxene series [oil colours], (P.), B., 879. Colour lakes, (P.), B., 895. Coloured surfaces [and lustro effects] on unglazed brick and earthenware, (P.), B., 643. Condensation products, (P.), B., 265, 487, 872. Condensation products [polyalkylene glycol ethers], (P.), B., 88. Condensation products [for use in safety glass, etc.] (P.), B., 89. glass, etc.], (P.), B., 608. Condensation products from hydrogen sulphide and acetylene, (P.), B., 683. Condensation products [textile assistants] containing nitrogen and sulphur, (P.), B., 976. Condensation products of olefines, (P.), B., 1142. Condensation products of totally hydrolysed protein material [wetting agents], (P.), B., 985. Condensation products [containing sulphur], (P.), B., 686, 972. Water-soluble condensation products derived from phenolic resins, (P.), B., 944. Water-soluble condensation products suitable as assistants in the textile and related industries, (P.), B., 684. Basic copper chlorides, (P.), B., 495. Copper salts, (P.), B., 369. Corrosion-resistant constructional elements, (P.), B., 1045. Cupriferous dyes, (P.), B., 267. Cyanine dyes and of sensitised photographic emulsions, (P.), B., 978. Cyanuric acid,

4:5-[Di]alkyl-substituted 2-aminodiaryl ketones, (P.), B., 1143. N-Substitution products of 1:4-diaminoanthraquinones, (P.), B., 265, 878. s-Di(arylamino)hydroxybenzenes[-phenols], (P.), B., 685. Sulphonic and carboxylic acid derivatives of 1:1'-diaryl-3:3' arylene-5:5'- bispyr-azolones, (P.), B., 92. Sulphonic and carboxylic acid derivatives of 1:3 diaryl-5-pyrazolones, (P.), B., 92. Solid diazonium salts, (P.), B., 265. Stable diazo-salt preparations, (P.), B., 265. 1:4 - Dihalogenoanthraquinone - 2 - carboxylic acids, (P.), B., 182. [Dihalogeno]-diphenylmethane derivatives, (P.), B., 182. 2:3-Dihydroindoles, (P.), B., 687. [Dioxazine] dye-sulphonic acids, (P.), B., 1198. Disazo-dye, (P.), B., 267. [Direct] disazo-dyes, (P.), B., 978. Dodecahydrotriphenylene, (P.), B., 229. Precipitation of dust [in mines, etc.], (P.), B., 432. Dye compositions, (P.), B., 446. Drying of dyes and other materials, (P.), B., 2. Dyes of the anthracene series, (P.), B., 586. Dyes

(P.), B., 360.

*I. G. Farbenind. A.-G.—continued.

of anthraquinone series, (P.), B., 267. Dyes of the anthraquinone series [for acetate silk], (P.), B., 782. Acid dyes of the anthraquinone series, (P.), B., 688. Dyes of the anthraquinone-oxazole [1:2-oxazoloanthraquinone] series capable of being chromed, (P.), B., 978. Dyes of the dioxazine series and intermediates therefor, (P.), B., 184. Dyes of the fluorindine series, (P.), B., 447. Dyes of the pyrone series, (P.), B., 688. Dyes of the triarylmethan series, (P.), B., 733, 827. Acid dyes [of the triarylmethane series], B., 733. [Green] acid dyes [of the triarylmethane series, B., 733. [Brown to black] dves [by oxidation] on cellulosic fibres, (P.), B., 737. Chromiferous dyes [of the amino-peri-naphthalimide series], (P.), B., 978. Yellow substantive dye for cotton, (P.), B., 880. Dyeing with vat dyes, (P.), B., 737, 929. Dyeing [cellulose with sulphonated fluorindines], (P.), B., 1089. Dyeing leather, (P.), B., 692. Dyeing of pelts, (P.), B., 315. 692. Dyeing of pelts, hairs, and feathers, (P.), B., 271, 451. Treatment of dyeings for improving their fastness, (P.), B., 929. Treatment of dyeings prepared on cellulosic materials by means of substantive dyes, (P.), B., 271. Improvement of dyeings on cellulosic fibres with substantive dyes, (P.), B., 691. Dyeing and printing, (P.), B., 1089. Dyeing or printing acetyl-cellulose, (P.), B., 983. Dyeing or printing of animal fibres, (P.), B., 189. Dyeing and printing vegetable fibres are retrieval fibres of recornected collusions. or artificial fibres of regenerated cellulose by means of leucosulphuric acid ester salts of vat dyes, (P.), B., 590. Dyeing and printing of vegetable or artificial textile materials, (P.), B., 737. Dye-sulphonic acids [sulphonated diarylaminobenzoquinones], (P.), B., 878. Enol and thioenol compounds, (P.),

B., 920. Ethyl chloride, (P.), B., 780. Fibres, artificial, (P.), B., 95. Artificial fibres for spinning, (P.), B., 927. Treatment of bundles of artificial fibres, (P.), B., 985. Treatment of fibrous materials, (P.), B., 832. Porous filter bodies, (P.), B., 224. Flexible sheet materials having a sticky surface, (P.), B., 97. Keeping cut flowers fresh, (P.), B., 950. Fluerinated organic compounds, (P.), B., 1141, 1192. Preservation of green fodder, (P.), B., 954. Rotary tubular

furnaces, (P.), B., 303.

Gas mixtures rich in hydrogen, (P.), B., 1138. Gas mixtures containing nitrogen or nitrogen and hydrogen, (P.), B., 453. Apparatus for carrying out exothermic catalytic gas reactions, (P.), B., 576. Gelatin reliefs for imbibition printing, (P.), B., 477. Glutamine, (P.), B., 91. Glyoxylic acid, (P.), B., 89. Guanyl and biguanyl [diguanyl higher aliphatic] compounds, (P.), B., 873.

Halogenated ethers, (P.), B., 824, 983. Halogenoamino - 1:9 - anthrapyr imidines, (P.), B., 1084. [Heat-]insulating materials, (P.), B., 863. Unsymmetrical heptacarbocyanine dyes, (P.), B., 93. Heterocyclic compounds, (P.), B., 1083. Heterocyclic hydroxy-com-

*I. G. Farbenind. A .- G .- continued.

pounds, (P.), B., 977. Quaternary derivatives of heterocyclic compounds, (P.), B., 716. Hexamethine dyes, (P.), B., 93. Hormone of adrenal cortex, (P.), B., 1017. Hydrocarbons from cracking or destructive hydrogenation of carbonaceous materials, (P.), B., 180. Hydrocarbons from thermal treatment of carbonaceous materials, (P.), B., 1189. Hydrocarbons from heat treatment of carbonaceous materials in presence of halogens or their compounds, (P.), B., 679. Recovery of products from [crude] hydrocarbons, (P.), B., 180. Gaseous hydrocarbons, (P.), B., Hydrocarbons of high b.p., (P.), B., 869. Splitting of hydrocarbons of high b.p. into those of lower b.p., (P.), B., 357, 438. Purification of [mixed] hydrocarbons, (P.), B., 137. Cracking of hydrocarbon oils, (P.), B., 969. Hydrogen cyanide, (P.), B., 1206. Recovery of hydrogen sulphide from gases, (P.), B., 583. o-[Hydr]oxyazodyes, (P.), B., 733. [Chromed ohydroxy]azo-dyes, (P.), B., 781. A new hydroxycarboxylic acid and derived amides, (P.), B., 875. Hydroxy-compounds of the anthrapyrimidine series, B., 869. Splitting of hydrocarbons of pounds of the anthrapyrimidine series, (P.), B., 182. Aromatic hydroxy-compounds, (P.), B., 182. [Hydr]oxyalkylated βy - di[hydr]oxypropylaminobenzenes and the corresponding γ -alkyl ethers, (P.), B., 310. 3-Hydroxy-2-methylquinoline-4-carboxylic acid [and derivatives thereof], (P.), B., 976. [Hydr]oxynaphthatriazoles, (P.), B., 825.

Ice, (P.), B., 816. Imbibition reliefs, (P.), B., 955. Water-soluble salts of

imido - ethers, imidothioethers, or amidines, (P.), B., 873. Separation of solid inorganic and organic constituents from oils containing the same, (P.), B., 916. Intaglio printing inks, (P.), B., 206. Operation of internal-combustion engines with liquefied gases, (P.), B., 583.

Ketones of anthracene series, (P.), B., 266. Cyclic ketones, (P.), B., 1194. Krypton and xenon, (P.), B., 1093.

Laundrywork, dry-cleaning, etc., plant, and method of operation, (P.), B., 17. Leather, (P.), B., 850. Treatment of leather and furs, (P.), B., 1149. Apparatus for separation of liquids of different sp. gr., (P.), B., 769. Separation of undissolved liquid or solid constituents from liquids, (P.), B., 432. Purification of aqueous liquids from phenols and contingently other accompanying substances, (P.), B., 820. Improvement of mineral lubricating oils, (P.), B., 137. Highly viscous[lubricating] oils, (P.), B.,

Magnesium, (P.), B., 1102. Thermal production of magnesium from magnesia or materials containing it, (P.), B., 1049. Preventing corrosion of magnesium and its alloys, (P.), B., 938. Surface treatment of magnesium and high-percentage magnesium alloys to increase their resistance to corrosion, (P.), B., 1049. Anhydrous magnesium carbonate (magnesite), (P.), B., 495. Depolarising compositions from native manganese dioxide, e.g., pyrolusite, (P.), B., 1163. Manganous phosphate dihydrate, (P.), B., 1039. Artificial

*I. G. Farbenind. A.-G.—continued.

masses, (P.), B., 511. Medicaments, (P.), B., 299. Mercaptans of high mol. wt., (P.), B., 1193. Mercerisation processes, (P.), B., 143. Mercury compounds containing nitrogen [bactericides and fungicides], (P.), B., 1019. Organomercury-silicon compounds, (P.), B., 1019. Hardening surfaces of metal [steel] articles, (P.), B., 937. Surfacehardening metal surfaces, (P.), B., 937. Device for hardening metal [steel] surfaces, (P.), B., 1045. Heavy-metal complex compounds of azo-dyes, (P.), B., 140. Free ω -methanesulphonic acids of pyrazoloneamines, (P.), B., 1144. Purification of crude methyl alcohol, (P.), B., 823. Purification of synthetic (P.), B., 823. Furnication of Synthetic methyl alcohol, (P.), B., 632. 1-Methyl- $\beta\beta$ '-naphthathiazole and substitution products thereof, (P.), B., 977. Non-knocking motor fuels, (P.), B., 778. Non-knocking motor fuel from catalytic reaction of carbon monoxide and hydrogen (P.) B. 1100. Moulds par hydrogen, (P.), B., 1190. Moulds, particularly for use in dentistry, (P.), B.,

Naphthalene - 1:4:5:8 - tetracarboxylic acid. (P.), B., 825. Nitriles, (P.), B., 1082. Nitro-azo-dyes containing metal, (P.), B., 923. Nitro- and amino-com-1082. pounds of substituted benzotrifluorides. (P.), B., 1143. Substituted nitro- and amino-chrysenes, (P.), B., 973. Nitro-derivatives of l-sulpho-2-hydroxynaphthalenc-3-carboxylic acid, (P.), B., 875. Nitrodibenzanthrones, (P.), B., 311. Nitro-dyes [for wool and leather], (P.), B., 978. Apparatus for manufacture of nitrogen or mixtures of nitrogen and hydrogen, (P.), B., 542. Mixtures of nitrogen and hydrogen, practically free from oxygen and oxides of nitrogen, (P.), B., 1151. Aromatic nitrogen compounds [sec. amines], (P.), B., 1082. High-polymeric nitrogen-containing compounds, (P.), B., 973. Salts of cyclic nitrogenous bases, (P.), B., 1179. Nitrogenous condensation products, (P.), B., 183. Nitrogenous condensation products [dyes], (P.), B., 978. Nitrogenous condensation products [textile assistants], (P.), B., 139. Nitrogenous derivatives of dibenzanthrone, (P.), B., 538. 6-Nitro- and 6-amino-2:3-hydroxynaphthoic acid, (P.), B., 686. 4-Nitrosodi-phenylamine derivatives, (P.), B., 265. Olefines from [saturated] gaseous hydrocarbons, (P.), B., 778. Polymeris-

ation products of olefines, (P.), B., 870, 971, 1191. Oleum, (P.), B., 452. [Oxazine] dyestuff sulphonic acids, (P.), B., 924. Apparatus for generation of oxygen, especially for breathing purposes, (P.), B., 1039.

Perylene, (P.), B., 874. Products of the nature of petroleum jelly, (P.), B., 1080. Removal of phenols from waste aqueous liquors, (P.), B., 958. Apparatus for recovery of phenols from waste aqueous liquors, (P.), B., 222, 958. Phosphoric esters of flavins, (P.), B., 1130. Photographic antihalation layers and filter layers, (P.), B., 125, 572. Photographic [reversal] developers, (P.), B., 1021. Photographic emulsions, (P.), B., 477. Photographic gelatin emulsions, (P.), B., 477, 572. Photographic silver *I. G. Farbenind. A.-G.—continued. halide emulsions, (P.), B., 396. Orthochromatic sensitisation of photographic silver halide emulsions, (P.), B., 477. Developers for photographic silver halide emulsions, (P.), B., 300. Development of silver halide emulsions and photographic developers therefor, (P.), B., 221. Fine-grain development of silver halide emulsions, (P.), B., 300. Sensitisation of photographic silver halide emulsions, (P.), B., 125. Copying lenticular photographic films bearing colour-record images, (P.), B., 1021. Copying colour-record photographs on to lenticular films, (P.), B., 525. Photographic copying of lenticular colour-record films, (P.), B., 173, 221. Rapid development of photographic films, (P.), B., 477. Printing photographic lenticular films, (P.), B., 955. Printing lenticular colour-record films, (P.), B., 300, 814. [Optical device for] projection of lenticular colourrecord photographic copies, (P.), B., 764. Embossing rollers, particularly for producing lenticular films, (P.), B., 478. Projection of lenticular films, (P.), B., 813. Lenticular stencil film, (P.), B., 478. Photographic sensitive layers having protective coatings, (P.), B., 955. Production of whitish silver images in photographic gelatin silver halide layers, (P.), B., 173. Apparatus for examining the grain of a photographic imago layer, (P.), B., 173. Photographic pictures, (P.), B., 220. Photographic production of pictures in one or more colours, (P.), B., 125. Multicolour photographic pictures, (P.), B., 1237. Multi-colour photographic pictures and photographic material therefor, (P.), B., 478. Packing for photographic plates, (P.), B., 764. Photographic printing, (P.), B., 349. Photographic printing of lenticular colour-record film, (P.), B., 349, 764. Printing of component colour pictures on the lenticular films, (P.), B., 349. Antihalation and filter layers for photographic purposes, (P.), B., 572. Photographic production of direct positives for autotype purposes, (P.), B., 477. Colour photography, (P.), B., 1021, 1181. Three-colour photography, (P.), B., 668. Improving properties of phthalocyanine dyes, (P.), B., 1198. Pigments, (P.), B., 652. Pigment colours, (P.), B., 652, 1109. Pigment dyes, (P.), B., 56. [Plastic] condensation products [containing sulphur], (P.), B., 654. [Plastic] compositions of matter, (P.), B., 206. Stabilisation of polymerisation products, (P.), B., 264. Polymethine dyes, (P.), B., 827. Manufacture and application [as photographic sensitisers] of polymethine dyes and intermediate products, (P.), B., 447. Production or recovery of polynuclear organic compounds [from bituminous substances], (P.), B., 8. Apparatus for producing pressure in containers for liquids by means of solid carbon dioxide, (P.), B., 624. Printing with [chrome] mordant dyes, (P.), B., 1204. Printing with vat dyes, (P.), B., 787. [Assistants for] printing with vat dyes, (P.), B., 930. Printing of textile materials, (P.), B., 1089. Printing of textile materials with vat dyes, (P.), B., 832. Dye printing preparations, *I. G. Farbenind. A.-G.—continued.

(P.), B., 1148. Separation of propyl ether from mixtures of the same with propyl alcohol, (P.), B., 733. Protective envelopes of paper, etc., suitable for containing food, (P.), B., 142. Pulverising device, (P.), B., 175. Pyrene compounds, (P.), B., 361, 974. Pyridine dyes, (P.), B., 924.

Quinophthalonemonosulphonic acids,

(P.), B., 688.

X-Ray photographs, (P.), B., 1133. Dyed [rayon] filaments and films, (P.), B., 882. [Synthetic-resin] coatings or fillings, (P.), B., 287. Colouring of rubber, (P.), B., 1009. Products containing chlorinated rubber, (P.), B., 113. Rubber-like condensation products and shaped articles therefrom, (P.), B., 161.

Saccharide basic products, (P.), B., 824. Acid safranine dyes, (P.), B., 12. Silicic acid esters, (P.), B., 973. Artificial silk, (P.), B., 366. Artificial silk or artificial spinning threads, (P.), B., 269. Artificial silk, fibres, films, etc., (P.), B., 637. Sizing of fibrous materials, (P.), B., 1148. Apparatus for introducing solid substances in predetermined amounts into closed vessels [to produce pressure therein], (P.), B., 223. Combined sound and picture films, (P.), B., 764. Sterol compounds, (P.), B., 1178. Sulphone-amides, (P.), B., 1083. Sulphonylethylamines, (P.), B., 1195. Sulphur, (P.), B., 1039. Recovery of sulphur [from gas-purification oxides], (P.), B., 1093. High-molecular [plastic] products containing sulphur, (P.), B., 1112. Organic sulphur compounds, (P.), B., 443, 686, 972, 975, 1193. Organic sulphur compounds [alkylsulphonylethanesulphonic acids], (P.), B., 972. High-molecular [plastic] organic sulphur compounds, (P.), B., 1112.

Tanning, (P.), B., 850. Chrome tanning, (P.), B., 948. Tanning materials, (P.), B., 609, 707. Apparatus for recording temperatures, (P.), B., 460. 3:4:5:6-Tetrahalogeno-2-amino-1-[hydr]oxybenzenes, (P.), B., 685. Solid tetrazo-salt, (P.), B., 229. Treatment of textiles and leather, (P.), B., 1149. [Assistants for wet] treatment of textiles, (P.), B., 787. Organic compounds containing acid salt-forming groups [textile assistants], (P.), B., Compositions for use in the textile in-dustry, (P.), B., 633. Products for use in the textile and similar industries, (P.), B., 824. Treatment of textile materials, (P.), B., 1149. Dressed textile materials, (P.), B., 189. Treatment of dyed textile goods, (P.), B., 367. Therapeutically active preparation for treatment of malignant tumours, (P.), B., 124. Therapeutically active substances, (P.), B., 1178. Thiazine dye, (P.), B., 978. Dyes of the thioindigo series, (P.), B., 447. [Thio]indigoid vat dyes, (P.), B., 447. Unsymmetrical vat dyes of the thioindigo series, (P.), B., 447. Polymerisation products from thiovinyl ethers, (P.), B., 684. Extensible bundles of artificial threads, (P.), B., 928. like extensible slivers of artificial thread, (P.), B., 928. Titanium pigments, (P.), 1057. 3:4:6-Triaminoquinolines, (P.), B., 716. [Triarylmethane] dyes,

*I. G. Farbenind. A.-G.—continued.

(P.), B., 361. Triphenylmethane dyes, (P.), B., 781. Acid triphenylmethane dyes, (P.), B., 781. Trisazo-dyes, (P.),

B., 826. Vat dyes, (P.), B., 267, 362, 446, 923. Vat dyes of the anthraquinone series, (P.), B., 184, 782, 827. Brominated vat dyes, (P.), B., 12. [Carbazolated] vat dyes of the anthraquinone series, (P.), B., 734. [Carbazolated] vat dyes [of the phthaloylacridene series], (P.), B., Vat dyes [of the naphthoylene-734. Vat dyes [of the naphthoylene-benziminazole series], (P.), B., 880. [Thio]indigoid vat dyes, (P.), B., 12. Vat dyeings, (P.), B., 99. [Treatment of] vegetable and artificial cellulosic fibres, (P.), B., 272. Vinylacotylene, (P.), B., 1081. Vinyl compounds, (P.), B., 140. N-Vinyl compounds, (P.), B., 182. Polymerised vinyl compounds, (P.) B. 704. Vinyl esters, (P.), B., 138. (P.), B., 704. Vinyl esters, (P.), B., 138. Polymerisation products of vinyl ethers, (P.), B., 654. [Vinyl] polymerisation products, (P.), B., 288. Polyvinyl esters, (P.), B., 88. Organic vinyl sulphoxides and vinyl sulphones, (P.), B., 443. Spinning of viscose, (P.), B., 637. Manufacture from viscose of fibres resembling wool, (P.), B., 981. Desulphurisation of viscose artificial silk, (P.), B., 637. Finishing of [viscose] artificial silk, (P.), B., 187. [Finished] viscose artificial silk, (P.), B., 187.

Washing or cleansing of textile materials, (P.), B., 1148. Process and preparation for washing and cleaning toxtile materials, (P.), B., 1090. Shaped washing and cleansing agents, (P.), B., 893. Washing, wetting, emulsifying, and similar agents, (P.), B., 873. [Gas for] welding, (P.), B., 554. Wetting agent for mercerising liquors, (P.), B., 1090. Enhancing wetting capacity of mercerising liquors, (P.), B., 272. Wetting, washing, dispersing, and similar agents, (P.), B., 310. Substitute for wool from viscose, (P.), B., 927. Wool-like artificial fibres, (P.), B., 269. [Acid wool]

dyes, (P.), B., 12.

Yarns, mixed, (P.), B., 95. and Deichsel, S., phenols, (P.), B.,

Dilthey, W., and Quint, F., condensation products [carbinol bases and carbonium salts], (P.), B., 445.

and Duisburger Kupferhütte, apparatus for treatment of solids with liquids, if desired, in presence of gases, (P.), B., 432. Recovery of copper in manufacture of cuprammonium artificial silk, (P.), B., 927.

and Groves, W. W., acid wool dyes, (P.), B., 879. Cosmetic preparations, (P.), B., 1238.

and Internat. Hydrogenation Patents Co., treatment with hydrogenating gases of distillable carbonaceous materials, (P.), B., 135. Products from coal varieties, tars, mineral oils, etc., (P.), B., 179. Production of liquid hydrocarbons by destructive hydrogenation of carbonaceous materials, (P.), B., 485. Destructive hydrogenation of distillable carbonaceous materials, (P.), B., 533. Heat-treatment of destructive hydrogenation residues, (P.), B., 1138.

I. G. Farbenind. A.-G., and Koenig, J., [hydrogenation] catalysts containing molybdenum and tungsten, (P.), B., 593. and Krefft, O. T., organic compounds containing fluorine, (P.), B., 1140.

and Lesser, R., condensation products from 2:3-hydroxynaphthoic acid, (P.),

Mietzsch, F., and Mauss, H., acridine derivatives [pharmaceuticals], (P.), B., 299, 524.

Wallis, T., and Falek, O., apparatus for drying vapours or gases, (P.), B., 529. Iacobsen, C., water-softening in a modern lager-beer brewery, B., 758

Iball, J., X-ray analysis of the orthorhombie crystalline modification of 1:2:5:6 - dibenzanthracene, A., 414. Crystal structure of condensed ring compounds. I. 1:2-cycloPentenophenanthrene. II. 7-Methoxy-3':3'-dianthrene. methyl-1: 2 - cyclo penten ophen anthreneand 7-methoxy-1:2-cyclopentenophenanthrene. III. Three carcinogenic compounds: 1:2-benzpyrene, methylcholanthrene, and 5:6-cyclopenteno-1:2-benzanthracene, A., 784, 1451.

See also Bachmann, W.E., and Cook, J.W.Ibañez, I., preparation for treating bottoms of ships, etc., for destroying animal and vegetable matter, (P.), B., 462.

Ibarz, J., light alloys of aluminium, zinc, and cadmium, B., 890.

Ibbs, T. L., thermal conductivity of carbon dioxide, A., 418.

Ibragimov-Karnovitsch, R. See Sushko, S. Ichaporia, M. B. See Hilditch, T. P., and Shah, R. C.

Ichihara, K., and Goto, S., intermediary metabolism of tryptophan. XXIII. Production of kynurenic acid by various animals, A., 1544.

and Nakata, H., intermediary metabolism of tryptophan. XIX. d-Indolyl-

lactic acid, A., 1544. See also Kotake, Y., and Yamasaki, R. Ichijo, T., effects of extracts of pituitary gland on sedimentation of red blood corpuscles of normal and hypophysectomised dogs, A., 354. Influence of oral administration of saponin with adrenaline, cphedrine, and insulin on bloodsugar and -inorganic phosphorus contents, A., 1146.

Ichikawa, C., effects of fertilisers on soil reaction. II., B., 246. Influence of deficiency of three essential elements of the fertiliser on yield, ash constituents, and nitrogen content of unhulled rice, B., 852. Alkali-soluble inorganic soil colloids, B., 949. Separation of cyanuric acid from soil of "Kagamigahara," B., 1222.

Ichikawa, N., acids in wood of Libocedrus formosana, Florin. VII., A., 395.
Ichikawa, T., synthesis of a-bromoiso-

valerylcarbamide, A., 1237.

Ichikawa, Y., straight asphalts. I. and II. III. Cementing strength, tensile strength, and impact test of steam-refined asphalts. IV. General properties, constituents, and combustion analysis of Schultz vacuum asphalts. V. Cementing strength, tensile strength, and impact test of Schultz asphalt. VII. General properties, constituents, and combustion analysis of Foster's vacuumasphalt. VIII. Cementing strength, tensile strength, and impact of Foster's

vacuum-asphalt, B., 626, 676, 1027, 1075.

Ichinose, M., arrangement of micro-crystals of silica in onyx, A., 450.

Ichitsubo, H. See Terai, K. Idaschkin, S. I., effect of ammoniacal liquor and coal tar on concrete, B., 21. Iddings, C., and Murale Co., casein solution, (P.), B., 1176.

Iddles, H. A., and French, K. S., determination of 5-methylfurfural[dehyde], A., 1133.

Ide, K. H., new synthesis of langbeinite, vanthoffite, and polyhalite, A., 816.

Ide, IV. S., carbon dioxide from "dry ice,"

A., 47. Micro-Dumas generation of carbon dioxide, A., 306.

See also Buck, J. S., DeBeer, E. J., and Snyder, H. R.

Idelichik, B. M. See Skorcheletti, V. V. Ievinš, A., sulphur content of illuminating gas as source of error in analytical work, B., 531.

and Straumanis, M., lattice constant of pure aluminium, A., 1186. Elimin-ation of errors in Debye-Scherrer pictures—experiment or calculation? A., 1449.

See also Straumanis, M. Iftimesco, G. See Nichita, G.

Igari, M., Machi, M., and Ku, O., flash-light lamp, (P.), B., 861.

Igelsrud, I. [with Thompson, T. G.], equilibria in saturated solutions of salts occurring in sea-water. I. Ternary sys- $MgCl_2-KCl-H_2O$, $MgCl_2-CaCl_2-CaCl_2$ H₂O, CaCl,-KCl-H₂O, and CaCl₂-NaCl-H₂O at 0°. II. Quaternary system MgCl2-CaCl2-KCl-H2O at 0°, A., 429, 1465.

Iglauer, A. See Bernhauer, K. Iglesias, G., chemical composition of carob seed, A., 1166.

Ignatieff, V., relative distribution of phosphorus and phosphatase activity in the floral parts of Nicotiana affinis, Petunia, Salpiglossis, and Gladiolus,

A., 1570. and Wasteneys, H., phosphatase distribution in higher plants, A., 1152.

Ignatieva, V. See Perschke, V. Ignatovitsch, N. J. See Orlov, N. A. Igolen, (Mmc.) M. G. Sec Naves, Y. R. Igranic Electric Co., Ltd., and Grafton, W. F., [laminated] contacts for electric

switches, (P.), B., 334.

Iguchi, M., and Schossberger, F., röntgenographic studies with stretched vulcanised rubber, B., 1112.

Ihio, T., blood and urinary phosphorus in various diseases, A., 363.

Ihlow, F., fornetograph in milling, B., 663. Ihrig, H. K., and Butterworth, A. S., [alkali silicate-phosphate] detergent, (P.), B., 233.

Iida, G., fraxin, a fraction of Fraxinus borealis, Nakai, A., 633. Effect of fraxin on uric acid excretion, A., 633. Mechanism of diuresis caused by fraxin, A., 633.

Iida, H. See Kameyama, N.

Iida, Y., relations between liver function and metabolism of fructose. I .-- VI., A., 1546.

Iijima, S., effect of fatty acids on tubercle and other acid-fast bacilli, A., 761.

Iimori, S., photo-luminescence of felspar, A., 923.

and Iwase, E., spectrographic investigation of thermoluminescence of felspar, A., 138.

Iinuma, H. See Nakatsuka, Y.

Iitaka, I., theories of metal corrosion, A., 576.

Ikawa, S., constituents of "senso." IV. Grignard cleavage of methyl deacetyl-V. Constitetrahydro-\psi-bufotalinate. tution of \(\psi\)-bufotalin, A., 478, 1252.

See Suzuki, U. Ikeda, R. Ikeda, T. Seo Kita, G. Ikeda, Z. See Aoki, N.

Ikenberry, G. J., relation of p_{II} to growth and distribution of mosses, A., 1569.

Ikeshima, S., iodometric determination of small amounts of morphine in viscera, A., 1137.

Ikeyama, K., nitrogenous constituents of the stomach wall of dogs, A., 499.

Iki, T. See Sahashi, Y., and Zaidan Hojin Rikagaku Kenkyujo.

Ikuma, S. Seo Ochiai, E. Iler, R. K. Seo Boswell, M. C. Iliesco, E. Seo Ionesco-Matiu, A.

Iliff, J. W. See Du Pont de Nemours &

Iljin, G. See Schmuk, A.

Iljin, N. V., and Tschapigin, V. F., rapid determination of assimilable phosphoric acid in freshly prepared superphosphates, B., 58.

Iljin, V. S., permeability and ion concentration in muscle excitation, A., 507. Mechanism of anti-hemolytic and -coagulatory action of blood-stabilising agents, A., 747.

Iljina, A. A. See Schpolski, E. V. Iljina, Z. A. See Bokinik, J. I.

Iljinskaja, M.A. See Zeidenberg, K.A.Iljinski, M. A., separation of alizarin from its mixtures with trihydroxyanthraquinones by precipitation from alkaline solution as sodium-calcium lake, B., 445. Separation of anthraquinone-2sulphonic acid from its mixtures with 2:6- and 2:7-disulphonic acid, B., 445.

and Afremov, B. I., discrepant behaviour of anthracenes of different origin towards sulphuryl chloride, A., 1240.

and Afremov, V., retarding agents in the chlorination of anthracene, A., 1498.

Ilkovič, D., polarographic studies with the dropping mercury electrode. III. Cause of maxima on current-voltage curves. IV. Measurement of polarisation capacity, A., 430, 683.

Illemann, E., bituminous road materials, (P.), B., 149.

Illényi, A. Seo Belák, S.

Illidge, R. E. See Burris, S. J., jun.

Illies, R., granulation of pressed yeast, B., 518, 565, 1063. Illig'sche Papierfabrik Vertriebs G.m.b.H.,

curing of raw hides, (P.), B., 850. Illingworth, S. R. See Illingworth Car-

bonization Co. Illingworth Carbonization Co., Ltd., and

Illingworth, S. R., shaped fuel, (P.), B., 678.

Illinois Clay Products Co. Seo Nichols, A. S.

Illinois University. See Johnstone, H. F. Illner, K. W. See Kröger, C.

Ilsley, L. C., Hooker, A. B., and Coggeshall. E. J., improved permissible flame safety lamps, B., 1186.

Imai, H., mitsumata. IV. Cooking, B., 1086.

and Ishikawa, F., white water; effect of $p_{\rm H}$ value and constituent[s] on the [paper-]sizing quality, B., 1086.

Imai, H., and Saeki, Y., mitsumata. V. Relations between the beating of mitsumata and the properties of its paper, B., 1086.

Imai, T., effect of splenic extracts on the blood picture, A., 495. Constitution of oryzanin (vitamin- B_1), A., 1526.

See also Makino, K. Imaizumi, M. See Tsunoo, S.

Imaki, T. See Takei, S. Imamura, Y., Koike, K., and Furuya, M., concentration of cell sap of mulberry leaves, A., 257.

Imanaka, Y. See Fujiwara, Takeo.

Imanishi, S., interference-spectroscopic examination of the gold hydride band spectrum in search of isotope effect due to suspected gold isotopes, A., 5.

Imatomi, S., relation between the common salt-making and magnesium industries

in Japan, B., 1150.

Imaz, I., and Pastor, M. F., emetine

sulphocamphorate, A., 516.

Imbert, R., Mosinger, M., and Bontoux, H., the estrogenic and gonadotropic hormones in epithelioma of the neck of the uterus, A., 1030.

Imboden, M. See Cox, W. M.

Imes, P. R., reaction of contents of the isolated duodenum, A., 1537.

Imhoff, M. See Berg, O. Imhoff, W. G., submersion time versus quality of hot-dipped zinc coatings, B., 412. Development and control of spangles on galvanised iron, B., 993.

Immelman, M. N. S., production of electron-pairs by y-rays in krypton, A., 264.

Immenkamp, W. See Kürschner, F.

Immer, F. R., association between mean yields of standard deviations varieties [of grain crops] tested in replicated yield trials, B., 659.

and LeClerg, E. L., errors in routine analysis of sucrose and apparent purity coefficient with sugar beet taken from field experiments, B., 808.

Immig, H. See Jander, G.

Imoto, M., oxidation of isosafrole, A., 848.

See also Ono, K.

Imperial Bureau of Soil Science, tropical soils in relation to tropical crops, B., 1010.

Imperial Chemical Industries, Ltd., [highvacuum distillation] treatment solids, (P.), B., 47. Azo-dyes on the fibre [ice colours], (P.), B., 537. Flavouring matters obtained from butter fat, and their application, (P.), B., 800. Solidification of molten materials, (P.), B., 912. Baked cereal food-stuffs, (P.), B., 953. Carboxylie acids and their salts, (P.), B., 975. Substances for use in pickling and cleaning of metals, (P.), B., 1046. Baked cereal food stuffs, (P.), B., 1176.

Baird, W., and Jones, M., preservation of rubber, (P.), B., 1221.

Baird, W., and Mavin, C. R., preserv-

ation of rubber, (P.), B., 561. and Baldwin, A. W., compounds for treatment of textiles, (P.), B., 92. Textile assistants, (P.), B., 684. Wetting, cleansing, and dispersing agents, (P.), B., 1143.

Baldwin, A. W., and Blackshaw, H., dyeing of cellulosic material [with

azoic dyes], (P.), B., 1089.

Imperial Chemical Industries, Ltd., Baldwin, A. W., Bunbury, H. M., and Heilbron, I. M., wetting, cleansing, dispersing, and similar agents, (P.), B., 90.

Baldwin, A. W., and Woolvin, C. S.,

dyeing process, (P.), B., 983.

and Bannister, L. C., [alloy for making] plant for manufacturing beer, (P.), B.,

Barnett, E. de B., and Lawrence, C. A., phenanthrene derivatives, (P.), B., 140.

acid-resistant [chlorinated-rubber] compositions, (P.), B., 1007. and Baxter, J. P., halogen derivatives of methane, (P.), B., 1192.

Baxter. J. P. and Y. Barsby, C. R., and Streight, H. R. L.,

Baxter, J. P., and Leach, F. P., rubber compositions, (P.), B., 656.

Baxter, J. P., Montgomery, T. N., and Moore, J. G., treatment of solutions of chlorinated rubber, (P.), B., 946.

and Bennett, N., treatment of mixtures containing dichlorobenzenes, (P.), B., 182.

and Booth, W. E., degreasing apparatus, (P.), B., 701.
Brownsdon, H. W., and Bannister, L. C.,

colouring of copper and copper alloys, (P.), B., 1212.

Brownsdon, H. W., Gee, F., and Wagstaff, H. F., pipo joints or couplings, (P.), B., 353.

Burchill, J., and White, G. S. J., dyeing of leather, (P.), B., 984.

Burrage, L. J., and Peacock, R. B., insulation of high-tension conductors in electrical precipitators, (P.), B., 157.

Callender, A., and Stevenson, A. B. automatic control of variable physical

characteristics, (P.), B., 1164. and Carey, W. F., furnaces for production of hot gases, (P.), B., 399.

Carter, D., Cuthbert-Smith, A. G., Jackson, Harry, Rendell, L. P., and Thomas, H. A. dyeing apparatus [for piece goods], (P.), B., 272.

Carter, D., Cuthbert-Smith, A. G.. Jackson, Harry, Shepherdson, A., and Thomas, H. A., dyeing process, (P.), B., 143.

Carter, P. G., Sennett, R. H., and Shaw, C., coloration of acetate artificial silk, (P.), B., 787.

Cashmore, A. E., and Clifford, I. L., potassium sulphate, (P.), B., 407, 542. Child, C., and Thomas, H. A., [dispersed] colouring matters, (P.), B., 267.

Clark, A. M., Batten, W. E., and Harrison, C. F. R., recovery of sulphur dioxide from gas mixtures, (P.), B., 1039. and Clark, W.J., [radiation] pyrometers,

(P.), B., 203.
Clark, W. J., Bosanquet, C. H., Bell, R. A., and Matthews, R., potentiometers, (P.), B., 27.

Cocksedge, H. E., and Burns, E. F., sodium carbonate, (P.), B., 494.

and Craik, J., delustring of lustrous textile materials and articles made

therefrom, (P.), B., S82.

Crawford, F. A. F., and Challenor, W. A. P., separation of liquids, (P.), B., 3.

and Crawford, J. W. C., methacrylic acid and alkyl esters thereof, (P.), B., 11. Polymerisation of [resinous] derivatives of unsaturated organic acids, (P.), B., 31. Unsaturated organic compounds [amides, acids, and esters], (P.), B., 972.

Imperial Chemical Industries, Ltd., Crawford, J. W. C., and McGrath, J., methacrylamide, methacrylic acid, derivatives thereof, (P.), B., 264.

Davies, J. S. H., and Jones, W. O., nitriles, (P.), B., 265.

and Dodd, H., [plastic] flame-resistant materials, (P.), B., 654.

and Dunbar, C., compositions useful in stripping of textiles, (P.), B., 99. Dry-cleaning, (P.), B., 1148.

Dunn, J. S., and Lefebure, V., coloured plasters, (P.), B., 934. Aggregates and decorative surfaces containing the same, (P.), B., 934.

Evans, J. G., and Piggott, H. A., stripping of dyes from textilo materials, (P.), B., 691.

Evans, J. G., Piggott, H. A., and Woolvin,

C. S., dyeing, (P.), B., 189. and Fawcett, E. W., refining of crude fats and fatty oils, (P.), B., 107. Improving natural resins and gums by distillation, (P.), B., 207. Rotenone and associated substances natural sources, (P.), B., 954.

Fawcett, E. W., and Walker, E. E.,

drying oils, (P.), B., 335.

Fawcett, E. W., and Gibson, R. O., formic acid, (P.), B., 872. Fawcett, E. W., Gibson, R. O., and Perrin, M. W., polymerised drying

oils or polymerised drying oil fatty acids, (P.), B., 1004. and Fisher, P. E., refrigeration, (P.), B.,

Gale, P. T., Hamilton, F., and Livesley, B. H., colouring paper and similar products derived from paper pulp,

(P.), B., 927. Gale, P. T., and Sexton, W. A., intermediates and their use in manufacture

of dyelino papers, (P.), B., 717. and Goldstein, R. F., [rubber-like] sulphur condensation products, (P.), B., 1221.

Haddock, N. H., Lodge, F., and Lumsden, C. H., [acid] anthraquinone dyes, (P.), B., 879.

Haddock, N. H., and Lumsden, C. H., azo-dyes, (P.), B., 687. Anthraquinone dyes, (P.), B., 688.

Hannay, R. J., and Wormald, A., textile [resist-]printing, (P.), B., 272.

Harrison, C. F. R., Clark, A. M., and Hilton, C. L., manufacture of sulphuric acid by the contact process, (P.), B., 1206.

and Heap, W., [double-walled] incandescence gas mantles, (P.), B., 262.

Heilbron, I. M., and Irving, F., benzanthrone derivatives, (P.), B., 876.

Hilditch, T. P., and Rigg, J. G., [mono]-glycerides of fatty acids, (P.), B., 242. Himsworth, F. R., and Dunn, J. S., anhydrous calcium sulphate and plas-

ters therefrom, (P.), B., 1151. and Hodgson, H. H., [5- and 8-]nitro[-a-] naphthylamines, (P.), B., 182.

and Holm, J. M., charges or cartridges for generation of gas pressures for actuation of mechanical devices, (P.), B., 1185.

and Hood, N. R., degreasing of metals and similar non-absorbent materials, (P.), B., 1046.

Hopkins, W. E., and Mudford, H. D., dyeing of union goods containing cellulose ethers or esters, (P.), B.,

Imperial Chemical Industries, Ltd., Howard, S., and Wormald, A., colour resists on textile materials, (P.), B., 231.

Irving, F., and Shaw, C., anthraquinone

vat dyes, (P.), B., 879.

Jackson, K. S., Wainwright, G. E., and Hailes, H. R., hydrocarbons or derivatives thereof, (P.), B., 11.

and Jesson, W. F., apparatus for degreasing metal and similar non-absorbent

articles, (P.), B., 242.

Jones, M., Smith, M., and Stewart, A., manufacture and application of pig-ment preparations [for colouring

rubber], (P.), B., 109.

- and Knight, A. H., manufacture and application of monoazo-dyes [for acctate silk, silk, wool, and leather], (P.), B., 12. Azo-dyes, (P.), B., 55. Manufacture and application of soluble azo-dyes, (P.), B., 266. Water-solublo azo-dyes, (P.), B., 362, 687. Secondary disazo-dyes [for rayon], (P.), B., 362. Azo-dyes [for rayon], (P.), B., 362.
- Lawrie, L. G., Reynolds, R. J. W., and Piggott, H. A., treatment of celluloso fibres, yarns, woven fabrics, etc., (P.), B., 272.

and Levesley, A. S., lubricating composi-

tions, (P.), B., 1190. Linch, F. W., and Stocks, H. H., triaryl-

methane dyes, (P.), B., 489. Linstead, R. P., and Bradbrook, E. F.,

naphthalene derivatives, (P.), B., 55. Linstead, R. P., and Dent, C. E., colouring matter [of the phthalocyanine series], (P.), B., 463.

Lodge, F., and Lumsden, C. H., colouring matters [of the anthraquinone series for oils, waxes, rubber, wool, etc.], (P.), B., 140.

and Loveluck, R. J., vat dye, (P.), B.,

and McEntegart, J. M., distribution of finely-divided solid pesticides, (P.),

B., 958. McKay, W. B., and Bradbrook, E. F., naphthylamine derivatives, (P.), B., 55.

Matthews, M. A., and Parsons, L. G. B., destructive hydrogenation of carbonaceous materials, (P.), B., 259.

and Mendoza, M., metalliferous azodyes, (P.), B., 12. Azodyes for leather, (P.), B., 446. Manufacture and application of a now copper-

containing azo-dye, (P.), B., 877. and Mitchell, J. A. M. W., apparatus for degreasing metal and similar nonabsorbent articles by means of volatile

solvents, (P.), B., 3. and Moore, J. G., stabilisation of chlorinated rubber, (P.), B., 512. Chlorinated rubber, (P.), B., 1169.

Morgan, H. H., and Drummond, A. A., abrasive sheet material, (P.), B., 193. and Mudford, H. D., dyeing [of delustred cellulose ester or ether rayons], (P.), B., 929. Delustred artificial silks, (P.), B., 930.

Nonhebel, G., and Bell, R. A., sampling of liquors containing suspended solids,

(P.), B., 81.

Nonhebel, G., and Pearson, J. L., wet purification of gases, (P.), B., 968.

and Ockrent, C., chlorinated paraffin waxes, (P.), B., 1080.
Ockrent, C., and Bennett, N., derivatives

of paraffin wax, (P.), B., 1080. Products from paraffin wax, (P.), B., 1080. Imperial Chemical Industries, Ltd., Ockrent, C., and Hardie, D. W. F., compounds from halogonated paraffin wax, (P.), B., 1080.

Paine, C., and Radley, J. A., safety paper, (P.), B., 450.

and Perry, A. L. H., earburisation of iron and steel articles in fused salt baths, (P.), B., 415.

Piggott, H. A., and Speakman, J. B., compositions for setting animal fibres such as wool or hair, (P.), B., 493.

and Preston, G. H., porous blocks from chlorinated rubber, (P.), B., 656. Reid, W. G., and Sexton, W. A., azo-

pigments for colouring of rubber, (P.), B., 923.

Rendell, L. P., and Thomas, H. A., dycing of natural or regenerated cellulosic textile materials, (P.), B., 143. Dyeing of cellulose esters and ethers, (P.), B., 189.

Renfrew, A., Walter, J. M., and Gates, W. E. F., plastic material [from vinyl polymerides], (P.), B., 705.

and Rose, F. L., azo-dyes [containing copper], (P.), B., 877.

and Smith, S. K., plasters, (P.), B., 1042. Spencer, W. D., and Steele, S., chlorinated rubber, (P.), B., 609.

Spencer, W. D., and Walker, F. T., noninflammable plastic masses [for floor coverings, etc.], (P.), B., 560.

and Tattersall, H.J., plastic compositions containing gelatinised nitrocellulose, (P.), B., 752.

and Taylor, J., compositions for producing gas for use in pressure-operated

devices, (P.), B., 1133.

Taylor, J., and Young, W., blasting explosive devices, (P.), B., 1069.

Tyce, G. C., and Lefebure, V., plasters, (P.), B., 1154. Decorative fibrous sheet material and plaster board, (P.), B., 1208.

and Tyrer, D., roasting of ferruginous sulphide ores, (P.), B., 503.

Walker, F. T., and Hetherington, A. C., floor coverings and similar [plastic]

materials, (P.), B., 560. Waterman, H. I., and Dijk, J. A. van, treatment of vitamin-containing oils and products therefrom, (P.), B., 1005.

and White, A. G., blasting explosive cartridges or borehole charges, (P.), B., 861.

Wyler, M., and Kershaw, A., naphthalene derivatives, (P.), B., 265, 444.

Imperial Institute, African oil seeds, B., 66. African beeswax, B., 67. New materials for paper and board manufacture, B., 312. Cotton bark as a source of rayon pulp, B., 312. Cryptocarya latifolia nuts from South Africa, B., 345. Eolanthus gamwelliæ oil from Northern Rhodesia, B., 348. Hides from curing experiments in Southern Rhodesia, B., 609. Mineral fertiliser materials, B., 707. Metallic and inorganic compounds used as weed-killers, B., 708. Chaulmoogra oils, B., Production, utilisation, marketing of columbite-tantalite minerals, B., 1091.

Improved Equipment-Russell Engineering Corporation. See Niles, G. H.

Improved Metallurgy, Ltd., and Bunce, E. H., coking of agglomerates, (P.), B., 437. Ginder, P. M., Peirce, W. McL., and Waring, R. K., purification of zinc metal, (P.), B., 154.

Improved Seamless Wire Co. See Gibbs, R. F.

Inaba, K., organosol of sulphur, A., 794. Inaba, T., and Abe, Y., oxygen in coal. I. Direct determination, B., 580.

Inagaki, E. See Shinoda, R. Inagaki, G. See Ueno, S.

Inatomi, K., distribution of cystine and cysteine in the body, A., 226.
dependent Grinding Wheel Co. See

Independent Grinding Wilson, C. E.

India Rubber, Gutta Percha and Telegraph Works Co., Ltd., and Harding, II. L., articles [spinning pots] made of ebonite[coated textile fabric], (P.), B., 69.
Indian Refining Co. See Govers, F. X.,

and Kiser, M.

Indiana Steel & Wire Co., zinc coating of a ferrous article, (P.), B., 506*.

See also Crapo, F. M., Fowle, F. F., Judy, P. R., and Pennington, H. R.

Indovina, Renato. See Oddo, G.

Indovina, Roberto, blood-bromine. I. Determination. II. Control of method and values for normal subjects, A., 223. Products of blood-glycolysis, A., 1399. Formation of a phosphorylated compound during in vitro glycolysis, A., 1399.

Industria Articoli Caoutchoue, preparation and regeneration of activated carbon, (P.), B., 135. Activated carbon in granular form, (P.), B., 628.

Industrial Chemical Sales Co., Inc. Sec Haywood, G., and Lacy, P. B. Industrial Development Corporation. See

Wilkins, R. A. Industrial Dyestuff Co. See Whitaker, C. H. W.

Industrial Furnace Corporation. See Gray,

M. P., and Raven, F. A.

Industrial Patents Corporation, Newton, R. C., and De Beukelaer,

drying of glue, (P.), B., 1010.
and Walter, C. T., printing ink and articles impressed thereby, (P.), B., 652.

See also Jensen, L. B., Phelps, G. W., and Walter, C. T.

Industrial Process Co. See Goodwin, N. Industrial Process Corporation. See Minor, H. R.

Industrial Rayon Corporation. See Horst, W. P. ter.

Industrial Research, Ltd. See Snyder, F. H.

Industrial Research Laboratories, Ltd. See Kormann, F. A.

Industriekemska Aktiebolaget. See Omau,

Infeld, L., new electrodynamics and the fine structure constant, A., 660.

Ingersoll, A. W., Brown, J. H., Kim, C. K., Beauchamp, W. D., and Jennings, G., extensions of the Leuckart synthesis of amines, A., 1372.

Ingersoll-Rand Co., refrigeration, (P.), B.,

Ingle, J. D. See Cady, H. P.

Inglis, D. R., nuclear states and moments, A., 1316.

and Landé, A., magnetic moment of the neutron, A., 131.

See also Landé, A.

Inglis, G.O. See Ralph, S.J.Ingman, C. See Power-Gas Corp.

Ingmanson, J. H., and Kemp, A. R., soft vulcanised rubber; effect of temperature and oxygen pressure on ageing rate, B., 1112.

Ingold, C. K., De Salas, E., and Wilson, C. L., prototropy in relation to exchange of hydrogen isotopes. I. Rates of isomerisation and of hydrogen exchange in unsaturated nitriles, A., 1344.

and Nathan, W. S., mechanism of, and constitutional factors controlling, hydrolysis of carboxylic esters. Energies associated with induced polar effects in hydrolysis of substituted benzoic esters, A., 432.

Parekh, M. M., and Shoppee, C. W., possibility of ring-chain mesomerism. II. Properties of $\Delta^{a\epsilon}$ -hexadieneααγγδδζζ-octacarboxylic esters, A., 315.

Raisin, C. G., and Wilson, C. L. [with Bailey, C. R., and Topley, B.], structure of benzeno. II. Direct introduction of deuterium into benzene and the physical properties of hexadeuterobenzene, A., 1322.

and Wilson, C. L., structure of benzene. V. Fluorescence spectra of benzene and hexadeuterobenzene vapour. VI. Resonance emission spectrum of benzene and hexadeuterobenzene, A., 1322.

See also Angus, W. R., Bailey, C. R., Cowdrey, W. A., Hsü, S. K., and Hughes, E. D.

Ingold, E., impermeable coverings for walls, floors, roads, or similar surfaces, (P.), B., 934.

Ingraham, A. S., sugar-beet by-products

for fattening lambs, B., 857.
Ingraham, D. C., and Simpson, T. H., refractometric determination of oil in coconut and sesamé oil cake, B., 1215.

Ingraham, M. A., and Steenbock, II., relation of micro-organisms to carotenoids and vitamin-A. II. Production of earotenoids by Mycobacterium phlei, A., 114.

Ingraham, R. C., and Visscher, M. B., production of chloride-free solutions by action of the intestinal epithelium, A., 1412. Effect of various poisons on movement of chloride against concentration gradients from intestine to plasma, A., 1416. Ingram, J. T., dermatitis from dyed hair,

furs, and fabrics, B., 16.

Ingram, W. R., and Barris, R. W., diuresis associated with direct stimulation of the pituitary, A., 238. Evidence of altered carbohydrate metabolism in cats with hypothalamic lesions, A., 1407.

See also Barris, R. W.

Ingram & Duval, Inc. See Duval d'Adrian, A. L.

Ingvarsson, G., sensitivity to acetylcholine and velocity of hydrolysis by blood of acetylcholine in man, A., 239.

Inhoffen, H. H., mode of formation of $\Delta^{4:5}$ -cholestene-3:6-dione ethyl ether, A., 854. Transformations of brominated derivatives of cholesterol. II. III. Bromination of cholestenone, A., 1104,

Inman, M. T., and Byrnes, C. P., insecticide and fungicide, (P.), B., 900.

Inman, O. L., Barclay, G., and Hubbard, M., effect of titanous chloride on formation of chlorophyll in Zea mays, A., 395.

Innes, J. A. See Fullerton, H. W.

Innes, J. M., rôle of the 4-carbon dicarboxylic acids in muscle respiration, A., 1547.

See also Butler, C. G.

Innes, R. F., corrosion of metals by contact with leather, B., 163.

Inoue, G. Sec Nagai, S.

Inoue, H., significance of thiocyanate in hepatic coma, A., 365. Indican. IV. Absorption of indoles and indican synthesis in the body. V. Excretion of indican by bile, A., 369.

and Yamashita, M., thiocyanate ions in blood and urine of nephritic cases, A., 366.

Inoue, K. See Nagai, S.

Inoue, R., and Matsuura, A., heatresistance of silk and other textile fibres, B., 688.

See also Sakurada, I.

Inoue, T. See Kameyama, N. Inouye, K. See Matsuo, I. Inouye, T., organic constituents of bone, A., 498.

Insley, H. See McMurdie, H. F. Institution of Mining Engineers, drying of

washed coal, B., 49. Institution of Petroleum Technologists,

viscosity-conversion table for centistokes and Redwood seconds at 70° F., 140° F., and 200° F., B., 436.

Insulite Co. See Brill, P. Bin

Interessen Gemeinschaft der Farbenindustrie Akt.-Ges. See under I. G. Farbenind. Akt.-Ges.

International Anemostat Holding Co., Ltd., and Kurth, F. J., purifying and otherwise treating air by washing, (P.), B.,

Internat. Bitumenoil Corporation. Sec Vandegrift, J. N.

Internat. Carbonic Engineering Co. See Cole, H. W., and Eichmann, T.

Internat. Cement Corporation. See Durbin,

Internat. Combustion, Ltd., and Bruce,

F. M., rotary filters, (P.), B., 48. and Davidson, G. W., coal-cleaning plant, (P.), B., 308, 484. Plant for cleaning coal and other like granular material, (P.), B., 1135.

and Mead, H., automatic control of furnace temperatures, (P.), B., 47.

and O'Mara, R. F., rotary separating apparatus, (P.), B., 1023.

Internat. Furnace Equipment Co., Ltd.,

and Bailly, L., solid-fuel furnaces, (P.), B., 1184.

Internat. Harvester Co. See Sandstrom,

Internat. Holding de Distillation & Cokéfaction à Basse Temp. & Minière (Holcobami) Soc. Anon. Sec. "Intertrust" Comp. Gén. de Distillation e Cokéfaction à Basse Temp. & Minière, Soc. Anon,

Internat. Hydrogenation Patents Co., Ltd., knock-stable motor fuels, (P.), B., 180. Treatment with hydrogenating gases of distillable carbonaceous materials, (P.), B., 437. Production of knock-stable motor fuels by destructive hydrogenation of liquid hydrocarbons, (P.), B., 439. Catalysts particularly suitable for hydrogenation treatments, (P.), B., 495. Regulation of temperature in treatment of carbonaceous initial materials with hydrogenating gases, (P.), B., 582. Treatment of distillable carbonaccous materials with hydrogenating gases, (P.), B., 582, 1078.

Internat. Hydrogenation Patents Co., Ltd., catalytic treatment of carbonaccous materials with hydrogenating gases, (P.), B., 582. Separation of solid substances in products and residues of destructive hydrogenation of distillable carbonaccous materials, (P.), B., 679. [Production of hydrocarbons by heat treatment of carbonaccous materials with hydrogenating gases, (P.), B., 679. Low-boiling hydrocarbons from products of destructive hydrogenation of coals, (P.), B., 776. Removal of phenols from [waste] aqueous liquors, (P.), B., 958. Treatment of distillable carbonaceous materials under elevated conditions of temperature and, if desired, pressure, (P.), B., 968. Destructive hydrogenation of carbonaccous materials, (P.), B., 968. Production of valuable organic compounds and liquid hydrocarbons by treatment of carbonaccous materials with hydrogenating gases, (P.), B., 968. Valuable products, in particular parasiin wax, from substances containing bitumen, such as coals, shales, etc., (P.), B., 968. Benzines from middle oils by destructive hydrogenation, (P.), B., 1079. Motor fuel, (P.), B., 1080.

and Birkby, H. S., readily emulsifiable mineral oil compositions, (P.), B.,

1080.

See also I. G. Farbenind. A.-G.

Internat. Latex Processes, Ltd., rubberfabric material, (P.), B., 493. Rubber thread [from latex], (P.), B., 511. Spreading, coating, extruding, or like operations of aqueous dispersions of or containing rubber, etc., (P.), B., 512. Rubber articles, (P.), B., 753, 896. Elastic fabric, (P.), B., 803. Hollow rubber articles and formers therefore, (P.), B., 849. Rubber films or sheets [from latex], (P.), B., 946. Articles of continuous length and constant cross-section from fluid materials such as latex, (P.), B., 1220.

Madge, E. W., and Murphy, E. A., goods containing sponge-like or cellular rubber, etc., (P.), B., 657. Showerproof fabrics and like materials, (P.), B., 883.

Madge, E.W., and Payne, F.J., materials of compositions containing rubber, (P.), B., 803.

Madge, E. W., and Taylor, S. D., goods containing sponge-like or cellular rubber, etc., (P.), B., 753. Fabrics coated with waterproof compositions containing rubber, (P.), B., 985.

and Murphy, E. A., fabrics treated with waterproof compositions containing rubber, (P.), B., 1149.

Murphy, E. A., and Taylor, S. D., goods containing rubber or similar material, (P.), B., 706.

Twiss, D. F., and Carpenter, A. S., goods containing rubber or similar

material, (P.), B., 706.

Twiss, D. F., Carpenter, A. S., and
Neale, A. E. T., compounded aqueous dispersions containing rubber, (P.), B., 1220.

Twiss, D. F., and McCowan, W., artificial dispersions containing rubber, (P.), B., 208. (

Internat. Nickel Co., Inc., bright annealing of metallic products [nickel-chromium alloys], (P.), B., 1048.

See Fraser, Hugh J., Merica, P. D., and Wise, E.M.

Internat. Paper Co. See Campbell, John, and Cline, M.

Internat. Patents Development Co., crystallisation of dextrose, (P.), B., 213. Corn [maizo] starch dextrin rc-moistening gums, (P.), B., 389. Water-resistant dextrin paste, (P.), B., 1114. See Kelling, A. H., and Linn, D. E.

Internat. Precipitation Co., [pneumatic] centrifugal classifying apparatus, (P.), B., 3.

and Anderson, Evald, apparatus for electrical precipitation, (P.), B., 157.

and Deutsch, Walther, electrical precipitation [of suspended particles from gases], (P.), B., 605. Electrical precipitation [from gases], (P.), B., 1002. and Heimrod, A. A., purification of

sulphur dioxide-bearing gases and manufacture of sulphur trioxide therefrom, (P.), B., 102.

and $\mathbf{Heinrich}$, R, electrical precipitation of suspended particles from gases,

(P.), B., 283. Heinrich, R., and Feldmann, W., elcetrical precipitation, (P.), B., 283.

and Lissman, M. A., centrifugal separating apparatus, (P.), B., 129.

Internat. Printing Ink Corporation, printing methods and inks, (P.), B., 463. Oil

colours, (P.), B., 1109. "Intertrust" Compagnie Générale de Distillation & Cokéfaction à Basse Temperature & Minière Soc. Anon., and Internat. Holding de Distillation & Cokéfaction à Basse Temp. & Minière (Holcobami) Soc. Anon., process and oven for lowtemperature carbonisation in retorts,

(P.), B., 52. Inukai, F. See Nakahara, W.

Inzersdorfer Chemische Industrie G.m.b.H., soaps and soap masses, (P.), B., 800. Io-Dow Chemical Co. See Girvin, C. W.

Iob, L. V. Sec Swanson, W. W. Ionesco, N. G. Sec Tomesco, P.

Ionesco-Matiu, A., and Iliesco, E., identification of alkaloids as picrates, A., 493.

Ionescu, C. N., equilibrium and specificity of β -glucosidase action, A., 593.

and Bardeanu, A., oxidising action of ferric chloride. I. Statics and dynamics of the reaction, A., 939.

and Kizyk, A., kinetics of β-glucosidaso action, A., 593.

and Radulesco, V., preparation of hydrobromic acid in the laboratory, A., 947. See also Vintilesco, I.

Ionescu, M. See Tanasescu, I. Ionescu, T. V., luminous discharges [in a gas] at pressures less than 10-4 mm. of mercury in a magnetic field, A., 916. Characteristic periods of vibrations of ionised gases in a magnetic field, A., 1052. Properties of an electron which rolls without slipping and of radius varying inversely as the velocity, A., 1312.

and Mihul, C., distribution of electron velocities in the magnetic field, A.,

Ionides, M. G., device for estimating mean sp. gr. of a body of liquid, (P.), B.,

Iowa State College of Agricultural Mechanical Arts. Sec Werkman, C. H. Ipatiev, V. N., and Corson, B. B., gasoline from ethylene by catalytic polymerisation, B., 866.

Corson, B. B., and Pines, H., influence of sulphuric acid concentration on reaction between olefines and benzene, A., 975.

and Grosse, A. von, action of aluminium chloride on paraffins; autodestructive alkylation, A., 701. Reactions of paraffins and naphthenes with olefines; alkylation, A., 960. Polymerisation of ethylene with aluminium chloride, A., 960.

and Grosse, A. von [with Komarevski, V. I.], alkylation of naphthenes with olefines in presence of catalysts, A.,

Grosse, A. von, Pines, H., and Komarevski, V. I., alkylation of paraffins with olefines in presence of aluminium chloride, A., 960.

and Komarevski, V. I., destructive alkylation with a hydrogenating catalyst, A., 975.

Komarevski, V. I., and Pines, H., phosphoric acid as catalyst for destructive alkylation of hydrocarbons, A., 976. Phosphoric acid as catalyst for alkylation of aromatic hydrocarbons, B., 309.

and Pines, $H_{\cdot \cdot}$, polymerisation of ethylene under high pressures and in presence of phosphoric acid, A., 51. Alkylation accompanying depolymerisation, A., 976.

See also Grosse, A. von, and Universal Oil Products Co.

Ipatiev, V. V., and Tronev, V. G., displacement of noble metals from solutions of their salts by hydrogen at atmospheric or increased pressure; displacement of Pd from solutions of PdCl₂, Pt from solutions of H2PtCl6, A., 35.

Ipatov, I. V., thermal expansion of water,

Ippach, H., influence of time and temperature of hardening on strength of limesand stone, B., 791.

Ippen, F., seasonal variation in vitamin-Ccontent of the organism, A., 254. See also Demole, V.

Irany, E. P., new synthetic resins in manufacture of gramophone records, B., 801.

and Shawinigan Chemicals, Ltd., polyvinyl resinous composition, (P.), B.,

Irauth, F., and Neyman, E., adhesivity of lubricating oil, B., 134.

Iredale, T., isotopes and molecular asymmetry, A., 1317.

See also Gibson, K. E.

Ireks Akt.-Ges., and Purucker, G., preparations for nutritive, seasoning, and other purposes, (P.), B., 857.

Irey, K. M., and Commercial Solvents Corp., plasticiser for cellulose acetate composition, (P.), B., 1146.

Sco also Swallen, L. C.

Irie, K. See Lauer, K. Irie, T., artificial cryolite. I. Preparation of sodium fluoride from sodium silicofluoride, B., 368.

See also Murakami, M.

Irion, C. E., Craig, G. L., and Battelle Memorial Institute, adherent patina upon copper or its alloys, (P.), B., 155.

Irjala, O., calorimetric examination of chlorolysis of cellulose, B., 1034.

Irmann, R., endurance limits of aluminium alloys, B., 746. Mechanical testing of aluminium and aluminium alloys, B., 1159. Mould-filling capacity of aluminium casting alloys, B., 1159.

and Burg, E. von, resilience of aluminium

alloys, B., 550. and Müller, W., determination of durability of aldrey and pure aluminium, B., 200.

See also Zeerleder, A. von. Ironsides Co. See Williams, Robert C. Irrera, L. See Labruto, G.

Irreverre, F. See Sullivan, M. X. Irrgang, K. See Bernhauer, K. Irvin, C. I. See Noll, C. F.

Irving, F. See Heilbron, I. M., and Imperial Chem. Industries.

Irving, H., action of amines on esters. I., A., 979.

Irving, L., Fisher, K. C., and McIntosh, F. C., water balance of the seal, A.,

Solandt, O. M., Solandt, D. Y., and Fisher, K. C., respiratory characteristics of blood of the seal, A., 354. Respiratory metabolism of the seal and its adjustment to diving, A., 884.

and Welch, M. S., effect of composition of inspired air on circulation through the brain, A., 1134.

See also Manery, J. F.

Irwin, D. L., and Ruberoid Co., bitumen sheeting, (P.), B., 928.

Irwin, G. R. See Almy, G. M. Irwin, H. M., jun. See Bent, H. E.

Irwin, J. P., and Garrett, G. B., apparatus for treating [cleaning] gas, (P.), B., 845.

Irwin, W. H., Bailey, R. W., Law, T. C., Long, C. P., Morrison, H. J., Sheely, M. L., Tolman, L. M., Trevithick, H. P., and Vollertsen, J. J., analysis of com-

mercial fats and oils, B., 893.

Isaacs, B. L. See Cuthbert, F. P. Isaacs, E., and Wilson, Christopher L., electrolytic reduction of organic compounds. I. Analogies between cathodic reduction and action of dissolving metals; reduction of sorbic acid. II. Catalytic hydrogenation of sorbic acid at prepared cathodes of nickel and platinum. III. β-Vinylacrylic acid, A., 454, 808, 965.

Isaacs, R., relation of cell types in leucæmia to sensitivity to radium, A., 105.

Sturgis, C. C., Bethell, F. H., and Gold-hamer, S. M., blood [changes in anæmia and other diseases], A., 1135. See also **Kyer**, J.

Isac, C. See Enesco, I. Isacescu, D. A. See Hopff, H.

Isaev, V., essential oil of Echinophora, B., 667.

Isaiev, B. Sec Veksler, V.

Isakov, G. A. Sec Markovitsch, M. B. Isakov, L., system of masses of light atoms deduced from nuclear reactions alone. I. and II., A., 7, 401.

Isakova, A. A., influence of CV and SO4" on growth of white ramie (Boehmeria nivea) rhizomes, A., 1035. Effect of external factors on activity of the rhizosphere, A., 1035.

Isambert, Y. See Montagne, (Mlle.) M. Isbell, H. S., and Pigman, W. W., thermal mutarotation of d-galactose, l-arabinose, and d-talose, A., 1209.

Iselin, C. O'D., temperature-salinity correlation with the Florida Current, A., 584.

Isemann, W. Sce Wessely, F.

Isemura, T., action of ultra-violet rays on starch solution, A., 1291.

Isenrath, F., pressed parts from light metals in construction of vehicles, B., 550.

Isham, R. M., and Pine, W. B., alkylation of aromatic bodies (hydrocarbons], (P.). B., 921. Alkylated sulphonic acids and esters, (P.), B., 1142.

Ishaque, M., and Pearse, R. W. B., spin coupling in ³\Sigma states of PH and PD,

A., 1443.

See also Pearse, R. W. B.

Ishibashi, K., Fushun green shale. III.-IX., B., 581.

Ishida, M. See Uno, Y. Ishida, S. See Bito, K. Ishida, Y., and Tamura, T., perturbations of No 1 terms, A., 537.

Ishidate, M. See Asahina, Y. Ishihara, K., 2:8-dialkoxy-10-alkylacridinium derivatives with various kinds of amino-groups on the 5-carbon atom. V. Synthesis of 5-amino-2:8-dialkoxy-10alkylaeridinium hydroxides. VI. Synthesis of 5-amino-2:8-dialkoxy-10-alkylacridinium iodides. VII. Synthesis of 5-amino-2:8-dialkoxy-10-alkylaeridinium oxalates. VIII. Synthesis of 5-amino-2:8-dialkoxy-10-alkylacridinium derivatives and 5-(2':8'-dialkoxy-N'-alkylacridonamino) - 2 : 8 - dialkoxy - 10 - alkylacridinium derivatives. IX. Synthesis (2':8'-dialkoxy-10'-alkyl-10'-substituted-acridine)-5:5'-ethylenediamino-2:8dialkoxy-10-alkylaeridinium derivatives. X. Synthesis of 2:8-dialkoxy-5-p-aminoderivatives anilino-10-alkylaeridinium and (2':8'-dialkoxy-10'-alkyl-10'-substi-tuted-aeridyl)-5:5'-p-phenylenediamino-2:8-dialkoxy-10-alkylaeridinium deriv-atives. XI. Synthesis of 2:8-dialkoxy-5 - piperazino - 10 - alkylacridinium (2':8'-dialkoxy-10'-alkyl-10'-substitutedaeridyl)-5:5'-piperazino-2:8-dialkoxy-10alkylacridinium derivatives, A., 343,

Ishihara, M., structure of cellulose nitrates. I. Normal high nitrates. II. X-Ray patterns and structure of nitrates of various nitrogen contents. III. Density of nitrates and properties of the recovered cellulose. IV. Existence of various space lattices of nitrates of same nitrogen

content, A., 553.

Ishii, K., antagonistic action of lipins to the toxic action of bile salt, A., 374. Effect of thyroid gland preparation on formation of gastric ulcer by bile salts, and antagonistic action of cholesteryl oleate, A., 374. Relationship between toxicity of bile salts and their antagoniser, A., 374.

Ishii, Migaku, carotenoids and lipins of Ipomœa reptans (L.), Pair, A., 125. Effect of extra supply of vitamin- B_1 on

children, A., 1303.

Ishii, Minoru. See Suzuki, Kakuwo. Ishii, N., volatility of fuels containing ethyl alcohol. V. Total and partial vapour pressures of mixtures of ethyl alcohol and methylcyclohexane. VI. Total and partial vapour pressures of mixtures of ethyl alcohol and n-hexane. VII. Total and partial vapour pressures of ethyl alcohol-pentane mixtures. VIII. Calculation of starting temperatures of an engine using ethyl alcohol-gasoline hydrocarbon mixtures, B., 179, 356.

Ishii, S. See De la Rivière, R. D. Ishii, Y. See Kuwata, T.

Ishiguro, T. See Keimatsu, S. Ishikawa, F. See Imai, H.

Ishikawa, Fusao, Ferui, Y., and Takai, T., thermodynamic study of zine bromide, A., 936.

and Hagisawa, H., thermodynamic studies of silver and mercurous sulphate, A., 161.

and Moriwaki, K., integral free energy of solution of potassium chloride, A.,

and Takai, T., integral free energy of solution of sodium bromide, A., 937.

Ishikawa, Heishichi. See Kobayashi, K. Ishikawa, Hitoshi, hydrolysis of nucleot-

ides by acids, A., 433. and Komita, Y., enzymic hydrolysis of nucleotides and nucleosides. I. Hydrolysis of purine ribonucleotides, A., 1556.

Ishikawa, S. See Murata, Y.

Ishikawa, Tetsuya, and Baba, T., viscosity formula for binary mixtures, the association degrees of constituents being taken into consideration. XII. and Summary, A., 419, 558.

Ishikawa, Tokuzo. See Toyama, Y.

Ishimaru, S., eliminating elfects of PO4 radical in qualitative analysis. I.-V., A., 177. Preservation of standard solutions of oxalic acid and sodium oxalate. II., A., 178.

Ishimura, L. S., apparatus for converting lead suboxide into litharge, (P.), B., 274. Ishino, K., lipase of peripheral lymph, A.,

Ishino, T. See Namari, I.

Ishizaka, N., Okamoto, H., Miura, K., Matsuda, Shin-ichi, and Shako, T., bactericidal studies of quinine compounds, especially apoquinine derivatives. III., B., 858.

Isii. See under Ishii.

Ising, G., and Helde, M., nuclear photoelectric effect in deuterium, A., 402.

Iskra, E. V., corrosion under conditions of ethylene chlorohydrin production, B., 201.

Islamov, I. I., and Tolmatschev, J. M., colour of corundum, A., 449.

Isler, O. See Ruzicka, L.

Ismailov, N. V. See Nikiforov, V. K. Ismailski, V. A., and Popov, B. V., alkylation. V. Formation of ethyl ether from ethyl chloride and some theoretical deductions, A., 1486.

and Simonov, A. M., auxo-enoid systems.

I. Colour of nitrodiphenylaminoarsinic acids containing complementary auxochromes, A., 1396. Structure and toxicity of arsinic acids of the diphenylamine series, A., 1527.

Isobe, H., hydrogenation of coal, B., 83. Isobe, T., effect of age on sensitivity to

blood poisons, A., 1148. Isom, E. W., and Sinclair Refining Co., cracking of hydrocarbon oils, (P.), B.,

Israël-Köhler, H., and Becker, F., emanation content of air from the soil and underground tectonics, A., 48.

Israel, R. G. See Stephenson, H. P. Israel, S. L. See Scarf, M.

Issaguliantz, V. I., and Skoblinskaja, S. A., preparation of benzyl isoamyl ether, and its realisation on a technical scale, B., 918.

See also Nametkin, S. S.

Issatsehenko, B., corrosion of concrete, B.,

Issekutz, B. von, and Leinzinger, M.. pharmacological evaluation of ergot, III., B., 619.

Isshiki, S. See Kondō, M. Issoglio, G., cobaltiferous minerals from Usseglio, B., 1158.

Istomina, K. E. See Bruk, A. S.
Isumrudova, T. L., sources of vitamins.
XVIII. Concentrated sorrel juice as antiscorbutic agent. XIX. Effect of freezing on antiscorbutic activity of potatoes, B., 811.

See also Schepilevskaja, N. E. Itagaki, C. See Kotake, Y.

Itallie, L. van, cherry-laurel water obtained by distillation, B., 123.

Itallie, T. B. van, chemical composition of grasses in pure cultures at different stages of growth, B., 169.

and Frankena, H. J., relation between contents of crude, digestible crude, and pure protein in grass, B., 1125.

Itami, E., γ -series aluminium alloys, B., 64. Itano, A., spontaneous studies of soils. I. Collection of samples to be studied in

the laboratory, B., 657.

and Matsuura, A., nodule bacteria.
V. Influence of plant extract as accessory substance on the growth of the bacteria. IX. Electrical properties of the accessory substance. X. Influence of stimulating substances, especially alkaloids, on growth and morphology of nedule bacteria, A., 899, 1155, 1301. Thermophilic bacteria, with special reference to cellulose decomposition. I. Distribution of bacteria in surface soil, on rice straw, and on unhulled rice in different seasons, B., 658.

and Tsuji, Y., direct determination of p_{tt} of soil in its natural state by the quinhydrone method. II. A new electrode and its use, B., 657.

Itenberg, A. See Vanscheidt, A. Iterson, F. K. T. van, cavitation and surface tension. II., A., 668.

Iterson, G. van, jun., Meyer, K. H., and Lotmar, W., fine structure of plant chitin, A., 274.

See also Diehl, J. M.

Itihara, M., similarity between stressstrain diagrams obtained from impact tensile and torsional tests, B., 793. Impact torsion tests. V. Impact and static torsion diagrams of 0.6, 0.8, 1.0, and 1.3% carbon steels at low and high temperatures, B., 793.

Itino, S. See Sobue, H.

Itizyo, M., biochemistry of copper. XII. Beneficial effect on blood-transfusion,

Itkina, A., and Plechan, physico-chemical methods for determination of damage in wool, B., 363.

Ito, E. See Nishikawa, M. Ito, S. See Sakamoto, M.

Ito, T., surface activity and absorption of amino-acids. V. Diamino-acids. VI. Position isomerides of monoamino-acids, A., 677.

Itoh, R., spectroscopy of purified enzymes. II. Amylase and peroxidase, A., 758. Control of the enzymic action of lipase, A., 895. Substance controlling hydrolysing and synthesising actions of lipase. I., A., 1419.

Itough, T., Suginome, H., and Ueno, K., colouring matter of flowers of Kerria

japonica, DC, A., 395.

Itterbeck, A. van, determining state of degeneration of a gas, A., 418.

and Claes, (Mlle.) A., viscosity of gaseous oxygen at low temperatures; effect of pressure, A., 674.

and Vereychen, W., Simon desorption method between temperatures of 90° and 40° abs., A., 1084.

Itterlein, E. A. See Caulier, G.

Itzkovitsch, I., chromal [for tanning], B.,

Iv, B. T., and Iv, O. B., fused wood, B., 587. Iv, O. B. See Iv, B. T.

Ivančenko, D. See Dědek, J.

Ivanenko, D., and Sokolov, A., interaction of heavy nuclear particles, A., 1316. Self-interaction of neutrons and protons,

Ivannikov, P. J., and Gavrilova, E. J., catalytic decomposition of alcohols, A., 571. Catalytic esterification of alcohols without the use of acids, A., 806.

Ivanov, A. A. See Feolaktikov, V. V.

Ivanov, I. Z. See Orlov, N. A. Ivanov, K. I., polyatomic peroxides formed in initial stages of combustion of cyclohexane, A., 975.

and Schustina, V. I., oxidation of Grozni paraffinic solar oil by air under pressure,

B., 435.

Ivanov, K. N., and Gusev, V. I., properties of zinc-chromium catalyst for methyl alcohol synthesis, B., 309.

Kozlov, L. I., and Kozlov, M. A., properties of zinc-chromium catalysts for methyl alcohol synthesis, B., 631. See also Feldman, J. A., and Kudra, O. K.

Ivanov, (Mlle.) N. See Auger, V.

Ivanov, N. A. See Nikolaev, N. S. Ivanov, N. N., and Arasimovitsch, V. V.

irrigation and quality of the crop of oilbearing plants, B., 36.

Ivanov, N. P. See Tschernaja, L. A. Ivanov-Emin, B. N. See Alimarin, I. P.

Ivanova, A. I., preparation of unsaturated acids through nitriles from unsaturated hydrocarbon wastes of synthetic rubber, B., 945.

See also Tananaev, N. A.

Ivanova, E. I. See Koblianski, G. G. Ivanova, E. N. See De Kolosovski, N. A. Ivanova, L. V., application of contact filtration in refining of oil distillates, B., 626,

Ivanova, M. F. See Dijatschkovski, S. I. Ivanova, N., nutritional value of the soya bean, B., 394.

Ivanova, N. F., Alhagicamelorum (Dshantak) manna, A., 1571.

Ivanova, T. I., and Kalnina, V. N., dynamics of transformation of diphtheria toxins of various types into anatoxins, A., 623.

Ivanova, T. N. See Sementschenko, V. K. Ivanova, V. See Beliankin, D. S. Ivanova, V. E. See Paylov, V. P. Ivanovskaja, T., lubrication of moulds used

for preparing refractory goods, B., 370.

Ivanovski, F., Korsch, M., and Krischtul, E. B., utilisation of gases from nitric acid factories for preparation of nitrogen and nitrogen-hydrogen mixtures, B., 59.

Ivanovski, R. See Neumann, B.
Ivanovszky, L., colorimetrio measurements in the field of fats, oils, and waxes, B., 557.

Ivantscheva, E. G., morphology of pigments. III. X-Ray study of litharge, A., 1054.

See also Pamfilov, A. V.

Ivaschtschenko, J. G., and Podalko, E. A., gas occurrence in southern Daghestan, Ă., 1226.

Ivaschtschenko, J. N. See Kirsanov, A. Iveković, H., determination of chlorine value in potable and scwage water, B.,

Iveronova, V. I., application of X-ray analysis to study of season-cracking in brasses, B., 412. Iverson, C. A. See Bird, E. W.

Ives, D. J. G., and Rydon, H. N., isotopic exchange reactions of organic compounds. I. Intermolecular nature of three-earbon tautomerism, A., 188.

Ivins, E., and Kircher, H. S., heat treatment of [chromium-molybdenum] steel

[tubes], (P.), B., 280. Ivy, A. C. See Cuthbert, F. P., Ferguson, J., Freeman, S., Kim, M. S., Schmidt, C. R., and Sprague, R.

Iwadô, M., influence of bile acids on calcium metabolism. VIII. Influence of bile acids and spleen extract on urinary calcium exerction. IX. Blood composition of normal and splenectomised rabbits under the influence of bile acids and spleen extract, A., 106. Influence of fractionated liver extract on blood composition of normal dogs, A., 107. Blood composition of normal and splenectomised rabbits under the influence of liver extracts from normal and splenectomised rabbits, spleen extracts, and bile salts, A., 107.

Iwai, M. See Ueno, S. Iwaki, Y., alteration of lymph after death of animal, A., 98. Lymph obtained by the "Brunnenlymph" method of method of

Watanabe, A., 98. Iwakiri, M. See Fujise, S. Iwakura, Y. See Ueno, S.

Iwamoto, K., derivatives of anthraquinol disulphuric acid esters. I. Synthesis of azo-compounds, B., 683.

Iwamura, I., biochemistry of fermented soya-bean paste ("miso"). III. Effect of cystine on nutritive value of miso-protein given as supplement to rice. IV. Effect of cystine on nutritive value of "miso-protein" when fed to rats as a supplement to rice, A., 102; B., 1122. Determination of cystine in "shoyu," B., 1122.

See also Sakurai, Y.

Iwasaki, T., muscle extractives of hibernating giant salamander (Megalobatracus

japonicus), A., 500.

Iwasaki, Y., mannitol-forming bacteria isolated from sweet potatoes (Ipomwa edulis, Makino), A., 383. Mannitolforming bacteria isolated from "kaki" fruit (Diospyros kaki), A., 383. Change of hesperidin content of peel of the mandarin orange during ripening: hesperidin content of juice, embedded fibre (white fibre on segments), and endocarp of ripened fruit, A., 910.

and Sugimoto, T., substance causing turbidity in syrup of canned mandarin oranges (Citrus unshiu marc), B., 472.

 Iwase, E., fluorescence of Japanese hyalite in ultra-violet light. II., A., 958.
 Distribution of luminescence carriers in gypsum crystals, A., 1181. Luminescence of calcite. II. Thermoluminescence. III. Alteration of the fluorescence spectrum by previous heating, A., 1320.

Iwase, E., and Kuronuma, T., luminescence of calcite. I. Fluorescence spectrum of Japanese calcite in ultra-violet light, A., 1320.

See also Iimori, S.

Iwase, K., and Ota, W., catalysts for cementation of iron, B., 197.

and Sano, K., graphitisation of iron-carbon alloy from the viewpoint of the free energy, B., 644.

See also Honda, K.

Iwata, H., xylan, A., 103. Nutritivo effect of plant gums on formation of fat and glycogen, A., 370. Nutritive value of pentosans. III. Decomposition of xylan by intestinal bacteria. V. Digestion by intestinal enzymes, A., 378, 1290. Comparison of nutritive value of fodder proteins. I., B., 714.

Iwatsuru, R., and Kawaguchi, M., effect of hæmatoxylin on respiration and glycolysis of cancerous tissue and spleen

of cancerous rats, A., 504.

Iyengar, A. V. V., experiments with
Falkamesam [wood] preservative, B.,

Iyengar, B. A. S., and Subrahmanian, V., rôle of organic matter in plant nutrition. VIII. Influence of fermentable organic matter on transformations of iron in the swamp soil, B., 115.

See also Sastri, B. N.

Iyengar, N. K., and Sreenivasaya, M.,

inulinase, A., 1418.

Iyer, A. V., effect of progressive ripening of fodders on mineral nutrition of cattle. I. Mineral composition and mineral balance, A., 628.

Iyer, C. R. H., and Rajagopalan, R.,

determination of nitrogen [in soils, etc.] by fumeless digestion. III. Extension of chromic-sulphuric acid digestion to include large quantities of nitrates, B., 1170.

Rajagopalan, R., and Subrahmanian, V., determination of nitrogen [in soils, etc.] by fumcless digestion. II. Products of oxidative digestion of organic nitrogen: procedure for their inclusion in determination of total nitrogen, B., 340.

See also Bhaskaran, T. R.

Iyer, K. V. G., and Venkataraman, T. S., juice analysis for sugar-cane plantations devoid of laboratory facilities. II., B., 165.

See also Rao, K. K.

Izard, E. F., and Du Pont Viscoloid Co., esters of isobutyric acid [plasticisers], (P.), B., 1109.

See also Du Pont de Nemours & Co.,

Izbekov, V. A., fused salts, A., 1060.

and Skartschenko, K. J., thermal analysis of hydrated iron ores of Krivoi Rog, A., 1087.

and Zachartschenko, G.J., decomposition potential of solutions of bromides of metals in fused cadmium bromide, A., 293.

Izriumov, F., direct determination of rubber, gutta-percha, resins, and the insoluble residue with the help of centrifuging, B., 753.

Izsak, A. See Du Pont de Nemours & Co.,

Izvekov, I. V., thermal insulator for locomotive boilers, B., 175.

J.

Jaacks, H. See Eucken, A., and Tammann, G.

Jablezyńska-Jędrzejewska, H., poisoning of platinum in hydrogen electrodes, A., 1072.

Jablczynski, K., internal pressure in gases. VII., A., 418.

Hartman, A., and Salwin, M., iodine in Polish waters, A., 957.

and Helwich, J., influence of non-electrolytes on velocity of coagulation of

ferrie hydroxide, A., 934. and Legat, R., equilibria in solutions of

tri-ionic electrolytes, A., 289.

and Sawoniak, B., effect of dilution of ferric hydroxide sols, A., 1067.

Jablonski, A., dependence of fluorescence spectra on viscosity of the solvent, A., 11. Jablonski, J. T. See Broniewski, W.

Jablonsky, F., nickel-chromium alloys in the high-frequency furnace, B., 328.

Jacchia, P., tyramine. I. Moderating effect

on basal metabolism, A., 1146.

and Capocasale, F., tyramine. II. Moderating effect on human basal metabolism: therapeutic assays in hyper-thyroidism. III. Effects on the different systems of the human organism, A., 239.

Jack, G. B., jun., and Dorin Corp., packing composition [for valves and expansion joints working at high temperatures],

(P.), B., 401.

Jackel, L., dyeing of wool yarn in yellow and green shades fast to light and seawater, B., 188.

Jackman, F. W., and Warner Bros. Pictures, colour separation for composite

motion pictures, (P.), B., 955.

Jackson, A., steel-ladle refractories, B., 320. Jackson, Albert. See Howell, O. R.

Jackson, C. B., and Catalyst Research Corp., hydrogenation catalyst, (P.), B.,

See also Frazer, J. C. W.

Jackson, C. G. See Burden, W. M. Jackson, C. J., thiol compounds of milk, A., 880. Factors in reduction of methylene-blue in milk, B., 615. Technique for obtaining anaërobic milk; its carbon dioxide content, B., 615.

Jackson, C. U., red line of cadmium as a

standard of wave-length, A., 1168.

Jackson, D. A., and Kuhn, II., nuclear mechanical and magnetic moments of K³⁹, A., 397. Hyperfine structure of the resonance lines of silver, A., 916. Isotope shift in the resonance line of magnesium, A., 1039.

Jackson, D. H., vacuum refrigeration, B., 671.

Jackson, D. T., and Parsons, J. L., simplified rapid determination of available chlorine of pulp-bleaching solutions, B., 980.

Jackson, E. B. See Brues, A. M.

Jackson, E. L., and Hudson, C. S., oxidation of a-methyl-d-mannopyranoside, A., 457.

Jackson, E. R. B. See Hey, D. H. Jackson, F. K. See Wad, Y. D.

Jackson, G. J. See Woodall-Duckham (1920), Ltd.

Jackson, Harold, and Jones, Richard N., apparatus for the microhydrogenation of organic compounds, A., 1132.

Jackson, Harry. See Imperial Chem.

Industries,

Jackson, H. C. See Weekel, K. G. Jackson, I. M. See Goldberg, A.

Jackson, J. M., and Howarth, A., exchange of energy between diatomic gas molecules and a solid surface, A., 272.

Jackson, K. S. See Imperial Chem. Industries.

Jackson, L. C., magnetic moment of the manganic ion, A., 19. Paramagnetism of the rare-earth sulphates at low temperatures, A., 1329. Jackson, R. B., and Lieb, J. M., prevent-

ing accumulation of foreign matter in or on beer-handling equipment and treating beer, (P.), B., 1014.

Jackson, R. F., and Mathews, J. A., yield and purity of fructose derived from calcium lævulate process, B., the 212.

Jackson, R. G., and Baldwin, J. T., decorated and saturated sheet, (P.), B.,

Jackson, Richard W., and Block, R. J., does bis-\$-aminocthyl disulphide (cystamine) promote growth in the rat limited to an inadequate intake of cystine and methionine? A., 509.

and Manske, R. H. F., reaction products of indoles with diazo-esters, A., 84.

See also Gordon, W.G.

Jackson, Ronald W., and Short, W. F., sesquiterpenes of staraniseed oil, B., 171.

Jackson, S. H. See Harding, V. J.

Jackson, W., dielectric loss characteristics of a chlorinated diphenyl, A., 409. Correlation of the chemical composi-tion, physical constitution, and electrical properties of solid dielectric

materials, B., 1213. and Frank, F. C., electrical investigation of solutions of stearanilide in paraffin

wax, A., 156.

Jackson, W. W., effects of pressure and current on the intensities of the Balmer lines of hydrogen, A., 1437.

Jacob, (Miss) A. See Todd, A. R.

Jacob, Arthur, importance of mineral composition of fodder in animal nutrition,

Jacob, K. D., Rader, L. F., jun., and Tremearne, T. II., determination of available phosphorus in calcined phosphate and other water-insoluble phosphates, B., 1036.

Reynolds, D. S., and Marshall, H. L., phosphate fertilisers by the calcination process; volatilisation of fluorine from phosphate rock at high temperatures, B., 340.

See also Reynolds, D. S.

Jacobs, F. See Shiraeff, D. A. Jacobs, F. B., art of metal spinning, B.,

Jacobs, F. M. See Burgers, W. G. Jacobs, J. See Böeseken, J.

Jacobs, John. See Landsteiner, K. Jacobs, M. B., and Farinacci, N. T., determination and identification of salicin, B., 906.

Jacobs, M. II., Glassman, II. N., and Parpart, A. K., osmotic properties of the erythrocyte. VII. Temperature coefficients of certain hæmolytic processes, A., 874.

and Stewart, D. R., distribution of penetrating ammonium salts between cells and their surroundings, A., 889. See also Stewart, D. R.

Jacobs, P. B. See Weihe, H. D.

Jacobs, R. B., and Goetz, A., temperaturo function of X-ray reflexion in the neighbourhood of the m.p. of a crystal, A., 1053. Intensities of X-ray reflexion from Bi crystals between 25° and 530°

absolute, A., 1169. Jacobs, S. E. See Tincker, M. A. H. Jacobs, W. A., and Craig, L. C., [attempted] synthesis of] ergot alkaloids; synthesis of 4-carbolinecarboxylic acids, A., 216. Ergot alkaloids; structure of lysergic acid, A., 488. Ergot alkaloids. VIII. Synthesis of 4-carbolinecarboxylic acids. IX. Structure of lysergic acid. XI. Isomeric dihydrolysergic acids; structure of lysergic

acid, A., 742, 1277.

Craig, L. C., and Rothen, A., ergot alkaloids; ultra-violet absorption spectra of lysergic acid and related

substances, A., 406.
and Elderfield, R. C., strophanthin.
XXXIII. Oxidation of anhydroaglucone derivatives. XXXIV. Cyanohydrin syntheses with dihydrostrophanthidin and derivatives, A., 723. N-Alkyl group of aconine (aconitine), A., 1003. Lactone group of the cardiac aglucones and the Grignard reagent, A., 1117.

Jacobsen, A., determination of alkaloids in vinegar of sabadilla [Acet. Sabadilla,

Ph. Dan., 1933], B., 76.

Jacobsen, A. E. See Robertson, D. W.Jacobsen, A. P., endocrine organs of the blue whale, A., 249.

Jacobsen, Eduard, permissible improvement of flavour of conserve and fruit products by lactic acid, B., 393.

Jacobsen, Erik, storage of ascorbic acid in the intestinal wall of the guinea-pig, A., 646.

Jacobsen, J. See Blom, J.

Jacobsen, J. C., correlation between scattering and recoil in the Compton effect, A., 1041.

Jacobsen, J. E., cremometric and phosphatase tests for detecting pasteurisation of milk by the holding process, B., 1065. Jacobsen, J. H., and Olsen, T. M., detection

of mastitis in dairy herds, B., 122. Jacobsen, L. A., physiological and clinical rôle of bromine metabolism, A.,

Jacobsen, M. See Bøggild, C. B. K. Jacobsen, O. B., and Buell Combustion Co., centrifugal apparatus for separation of dust and grit from air and gases, (P.), B., 176. Apparatus for separating dust

from gases, (P.), B., 401.

Jacobsen, R. P. See Fieser, L. F.

Jacobsen, S. C., and Carter, G. W., practical solution to Salt Lake Valley smoke nuisance, B., 50. Solid smokeless fuel; production by carbonisation of Utah and Wyoming coals, B., 225. Steamdistilled coal gives low-temperature coke in the Karrich carbonisation process, B., 1026.

Jacobsmeyer, V. P. See Brady, J. J.Jacobsohn, K., problems of [photographic] gradation, B., 45.

Jacobsohn, K. P., and Pereira, F. B., action of magnesium on the aspartaso system, A., 110. and Soares, M., stereochemical specificity

and equilibrium in the fumarase system; biochemical production of d-malic acid, A., 241. Diffusion of aspartase, A., 379.

Jacobsohn, K. P., and Tapadinhas, J.. thermodynamics of enzymic equilibria; aspartase system, A., 241.

See also Pereira-Forjaz, A.

Jacobson, B. M. See Subbarow, Y., and Talbott, J. H. Jacobson, C. A., silica fluff, A., 690.

Jacobson, D. L. See Koppers Co. of Delaware.

Jacobson, H. G. M. See Morgan, M. F. Jacobson, M. G., balanced circuit for resistance thermometers, combustible gas indicators, etc., A., 1084.

and Mine Safety Appliances Co., gas testing, (P.), B., 583.

Jacobson, R. A., monosodiocarbamide and its reactions, A., 1495.

See also Du Pont de Nemours & Co., E. I.Jacobson, S., and Prindle, B., pipetting device for disinfectant testing, B.,

Jacobsson, W. J. See Linde Air Products

Jacoby, .1. L. See Alexander, L. L.

Jacoby, M., state of combination of residual nitrogen [in blood-serum] in experimental uranium poisoning, A., 93.

Jacquemain, R., and Muskovits, A., iodo-silver nitrobenzoate complex and its action on some allyl derivatives, A., 843.

Jacquemain, R. P., Maquenne block, A., 304.

and Balloué, G., ozoniser, A., 583.

Jacques, A. G., kinetics of penetration. XII. Hydrogen sulphide. XIII. Effect of $p_{\rm II}$ on the entrance of potassium into Nitella at low concentrations, A., 531,

Jacquet, P., instantaneous action of certain colloids on electrolytic deposition of copper, A., 170. Perfectly polished metallic surfaces, A., 305. Electrolytic polishing of copper, lead, tin, and their alloys, and its applications to metallography, A., 571. Mechanism of electrolytic polishing of copper, A., 687. Micrographic study of deterioration of brass surfaces by mechanical polishing, B., 501.

Jacquiert, C. See Parat, M. Jacquinot, P., Zeeman and Paschen-Back effects in the case of extreme j-j coupling; $2p^5ns$ configurations of neon, A., 769. Paschen-Back effect; ²S²P multiplets in strong fields, A.,

and Belling, T., Paschen-Back effect with Bellevue electromagnet supplied with supplementary coils, A., 2.

Jacquot, J. See Bonnet, R. Jacquot, R., and Trimbach, H., nutrient value of cow's milk and of modified milk for various mammals, A., 232.

Jacyna, V., critical phenomena, A., 148. Extreme values of the Joule-Thomson effect; inversion points of the second order, A., 558. Temperature variation of properties used to measure temperature, A., 930. Volume energy of real gases (He, Ne, H₂), A., 1059. Proof of the selection theorem, A., 1191. Compensation state ("basis line") for helium and carbon dioxide. I., A., 1454. U-Effect of Amagat and Weiss; equation of state on the basis of selection theorems and the Joule-Thomson effect. II., A., 1454.

Derevjankin, S., and Obnorski, negative cohesion pressure, A., 145. Jacyna, V., Derevjankin, S., Obnorski, A., and Parfentiev, T., general physical foundations of real thermodynamics, A., 1191.

See also Malis, L.

Jadin, J., adaptation of bacteriophage to heat, A., 1029.

Jaeck, W., progress in dyeing of wool piece goods, B., 188.

Jaeckel, (Frl.) B., hyperfine structure of platinum isotopes. II. Hyperfine structure scheme for the platinum isotope 195 and its mechanical nuclear moment, A., 916.

and Kopfermann, H., hyperfine structure of platinum isotopes. I. Isotopes of platinum and their centre of gravity, A., 654.

Jaeckel, G., significance of molecular forces in glass working, B., 543.

Jaeger, A. O., oxidation catalysis: its influence and effect on leather chemistry, B., 948.

and Amer. Cyanamid & Chem. Corp., catalytic apparatus, (P.), B., 351. Motor fuel, (P.), B., 439. Catalytic oxidation of cyclic compounds containing oxygen in the ring, (P.), B., 444. Sulphur trioxide, (P.), B., 542. [Waterproof] match, (P.), B., 718. Catalytic oxidation of ammonia, (P.), B., 931. Synthetic tanning material, (P.), B., 1170. Monocarboxylic acids [benzoic acid] and their derivatives, (P.), B., 1196.

Pietzsch, K. F., and Amer. Cyanamid & Chem. Corp., carrying-out of molecular associations and transformations, (P.), B., 47.

See also Daniels, L. C., and Selden Co. Jaeger, F. M., problem of dissymmetric

synthesis, A., 1228.

and Dijk, J. A. van, complex dipyridyl salts of nickel and copper, A., 175. Complex salts of dipyridyl with bivalent and tervalent cobalt, A., 692. Preparation and properties of some 1:2 diaminocyclohexanes, A., Different types of complex salts of 2:2'-dipyridyl with Cu, Zn, Cd, Fe, Ni, Co, and Rb, A., 944. and Poppema, T. J., exact determination

of specific heats at high temperatures. VIII. Additive law for atomic heats of metals in their binary compounds,

A., 1058.

Rosenbohm, E., and Fonteyne, R., exact measurement of the specific heats of metals at high temperatures. XXIII. Calorimetrical, electrical, and thermoelectrical behaviour of ductile titanium. I.—III., A., 930. Specific heats of solid substances at high temperatures. XI. Specific heats, electrical resistance. and thermo-electric behaviour of titanium in their dependence on temperature, A., 1058.

See also Poppema, T. J., and Rosenbohm, E.

Jaeger, $H_{\cdot \cdot}$, has the moon an influence on plant growth ? B., 292.

Jaeger, Hans, and Smith Corp., A. O., heatresistant [chromium-aluminium] alloy [steel], (P.), B., 601.

Jaeger, Helmuth, covering, resembling linoleum, for floors and similar surfaces, (P.), B., 207.

Jaeger, J. C., pair production by magnetic multipole radiation, A., 7. Electron pairs, A., 771.

Jaeger, J. C., and Hulme, H. R., electron pairs, A., 400. Annihilation of positrons, A., 404.

Jäger, J. G. See Parade, G. W.

Jaeger, M., and Espig, H., synthetic emerald, A., 1089.

Jaeger Truck Mixers (England), Ltd., and Bell, R. T., determining moisture content of powdery and granular material, (P.), B., 479. Jänecke, E., classification of binary,

ternary, and quaternary alloys, A., 559. Behaviour of two non-miscible liquids illustrated by two wire models, A., 1194. Solubility of ammonium phosphates and formation of two liquid phases at higher temperatures, A., 1194. Systems of sulphur and various metals, A., 1205.

and Mühlhäusser, W., reciprocal salt pair (K₂-Ca) (Cl₂-SO₄), A., 1205. Jäniche, W. See Hofmann, Wilhelm. Jaenichen, H., effect of potassium on the

nitrogen economy of ctiolated and green seedlings, A., 1163. Jänsch, H. See Mangold, E.

Jäppelt, A., and Steinmann, A., production of "synthesis" gas in the Technical Research Plant, "Reiche Zeche," Freiberg i. Sa., B., 1027.

Jaffa, N. E. See Coleman, J. H. Jagemann, W. See Gleu, K.

Jagenberg-Werk Akt.-Ges., dry glues from dextrin, (P.), B., 383.

Jager, W. A. den H., and Heil, J. F., epiphysis problem, A., 525.

Jagielski, A, and Wesolowski, J, dielectric polarisation of concentrated solutions, A., 408.

Jagitsch, R., study of solid reactions by the emanation method, A., 809. Application of Halm's emanation method to investigation of reactions in solid state. III., A., 1210.

and Maschin, A., reactions in the solid state. II. Investigation of formation of copper ferrite by the llahn emanation method, A., 1078.

Jahn, E. See under Jahu & Co. Jahn, E. C. See Bickford, C. A., McCarthy, J. L., and Plunguian, M.

Jahn, (f. See under Jahn & Co. Jahn, H. A. See Childs, W. H. J.

Jahn, T. L., nature and permeability of the grasshopper egg membrane. I. E.m.f. across membranes during early diapause, A., 877. Oxidation-reduction potential of protozoan cultures, II.
Reduction potential of cultures of
Chilomonas puramecium, A., 1559.
Physiology of cuglenoid flagellates. V. Effect of certain carbohydrates on growth of Euglena gracilis, Klebs. VI. Effects of temperature and of acetate on E. gracilis cultures in the dark. VII. Effects of salts of certain organic acids on growth of E. gracilis, A., 1559.

Jahn & Co., starch, (P.), B., 213.

Jahn-Held, W., and Jellinek, K., thermodynamics of silver fluoride-water mixtures, A., 1204. Free energy of formation of more noble metal fluorides compared with other analogous metal halides, A., 1205.

Jahr, K. F. See Jander, G. Jaia, F. See Dell' Aquila, A. Jain, J. R. See Yajnik, N. A. Jaitschnikov. See under Yaitschnikov. Jakimanski, V. F. See Grabovski, V. A. Jakimov, G. I. See Schilov, E. A.

Jakimov, P. A., and Kojalovitsch, N. B., peptisation of insoluble substances in oak extract, B., 420. Moulding and souring of tunning material, solutions, and extracts, B., 420.

Kojalovitsch, N. B., and Kurschakova, G. V., willow bark as a tanning material, B., 420.

and Kurschakova, G. V., determining tannins by precipitation with gelatin, B., 512.

and Ulman, K. Z., sumach tanning plant, B., 420.

and Tatarskaja, R. I., preparation of synthetic tanning materials from peat humic acids, B., 465. and Veltistova, M. V., Siberian larch

bark as tanning material, B., 420.

Veltistova, M. V., and Pentin, N. P., substitutes for Canadian balsam from the galipot of Abies sibirica, B., 681.

and Verigo, O. K., badan leaves as tanning material, B., 420.

Jakob, G., turbidity phenomena and depths of colour [in beers], B., 214.

Jakob, M., American measurements on supercooled steam, A., 552.

Jakoby, L., metallurgy of lead bronze, B., 645.

Jakovenko, M. I. See Girko, P. A.

Jakovkin, A. A., and Archangelski, P. A., simultaneous solubility of sulphur and iodine in carbon tetrachloride, A., 560. Jakovlev, D. I., humic acids of Tscherem-

chov coals, B., 624. Spontaneous ignition of Prokopiev coal, B., 625.

Jakovtschuk, A. I. See Blum, E.
Jakubovitsch, A. J., and Petrov, I.,
preparation of lead diethyl dichloride,

A., 61.

Jakubovitsch, S., and Goldberg, M., resistance of synthetic resins to action of solutions of salts, alkalis, acids, and

gases, B., 30.

Jakubson, S. I. See Plotnikov, V. A.

Jalander, Y. W., diacetyl as tuberelebactericidal constituent of Finnish woodtar, A., 641.

Jambhekar, M. R. See Hirwe, N. W. Jámbor, N., and Demény, Z., the microscope in qualitative leather analysis, B., 512.

James, A. L. See James, W.O.James, C., and Skinner & Sherman, Inc., treatment of beryllium-bearing ores, (P.), B., 319.

James, E. R., and Ruberoid Co., bitumen

sheeting, (P.), B., 696.

James, F. W. See King, A.

James, H. M., and Coolidge, A. S., ground

state of lithium, A., 774.

Coolidge, A. S., and Present, R. D., Heitler-London repulsive state of hydrogen, A., 552.

See also Coolidge, A. S.

James, J. H., and Byrnes, C. P., insecticides and fungicides, (P.), B., 662. Partial oxidation of hydrocarbons, (P.), B., 683. Oxygen derivatives of hydrocarbons, (P.), B., 683. Two-step oxidation of hydrocarbons, (P.), B., 683. Treatment of mineral oil products, (P.), B., 739. Partial oxidation products, (P.), B., 739. Denatured alcohol and denaturant for same, (P.), B., 758. James, L. H. See Goresline, H. E.

James, R. G., [rubber] lactron thread and

lastex yarn, B., 1035.

James, R. W., King, G., and Horrocks, H., crystal structure of p-dinitrobenzene, A., 414.

James, T. C. See Jones, J. I. James, W. M. See Hetler, R. A.

James, W. O., and Cattle, M., physiological importance of mineral elements in plants. VII. Effects of potassium and chloride ions on diastase of broad bean leaves, A., 648.

and James, A. L., determination of small quantities of fermentable sugars [in plant materials] by carbon dioxide

production, A., 1165.

Jamieson, C. D. See English Electric Co. Jamieson, G. S., and McKinney, R. S., composition of the oil of the American black walnut, B., 1054. Expressed kapok-seed oil, B., 1106. See also McKinney, R. S.

Jamieson, J., and King, J. G., products obtained by carbonisation of Scottish cannel in continuous vertical retorts, B., 771.

Jamieson, L. N., effects of composition on strength of concretes, B., 499.

Jamieson, R.B., jun. See Hambourger, W.E.Jamison, E. A., and Bateman, W. H., propane and butane as industrial fuels,

Jamison, N. C., and Cashman, R. J., photo-electric properties of barium and calcium, A., 1439.

See also Cashman, R. J.

Jan-Khan, M., and Samuel, R., absorption spectra and photodissociation of inorganic molecules, A., 1047.

See also Asundi, R. K.

Janatjeva, O. K. Scc Voskresenskaja, N. K. Jancke, H. O., limits of the continuous spectrum and line intensities for helium, Â., 653.

Jancke, O., alder beetle as a cherry pest, B., 423.

Janesó, H. von. Sec Janesó, N. von.

Jancsó, N. von, and Jancsó, II. von, chemotherapy of animals infected with trypanosomes by inhibiting carbohydrate metabolism of the parasites with halogenoacetic acids, A., 1422. Microscopical observation of the fluorescence produced during reversible production of vitamin-A in the retina during visual perception, A., 1566.

and Novák, E., microbiological basis of chemotherapeutic action. II. Microscopical detection of therapeutically applied gold in spirochætes, trypanosomes, and bacteria by ultracrystallisation. III. Fixation of therapeutically administered gold compounds by various recurrent spirochetes, A., 115, 385.

Jandebeur, W. See Schmidt, Erich.

Jander, G., and Banthien, H., amphoteric hydrated oxides, solutions of their hydrolysing salts, and their compounds of high mol. wt. XXX. Iso- and hetero-polytungstic acids, especially the mechanism of formation of arseno- and phospho-tungstic XXXIII. Phosphotungstates and their inter-relations, A., 29, 1477.

and Immig, H., elucidation of the course of reactions and of rates of reaction by modern conductometric methods, A., 939.

and Jahr, K. F., hydrolysis of inorganic salts and chemistry of high-molecular hydrolysis products, including isoand heteropoly-compounds. III., A.,

See also Harms, J., and Stumpf, K. E.

Jander, W., reactions in the solid state, B.,

and Wuhrer, J., reactions in the solid state at high temperatures. XIII. Course of reaction in formation of magnesium, strontium, and barium silicates, A., 574.

Jané, M. A. M., source of thermal

energy in alcoholic fermentation, B., 902. Janensch, I., can a yeast infected by Sarcina become Sarcina-free as a result

of further cultivation? B., 342. Removal of deposit from [beer] wort-cooling apparatus, B., 1014. Combating moulds on wooden [beer] tanks, B., 1014.

Janicki, J., and Kasprzyk, K., compounds

of serum-proteins with polysaccharides, A., 1143.

See also Chrząszcz, T

Janickis, J., action of hydrogen sulphide on hydrogen sulphite solutions, A., 40. and Gutmanaite, \hat{H} ., selenites of sodium, potassium, and ammonium in aqueous solution, A., 681.

Janis, A., isopiestic method of determining vapour pressures of salt solutions, A., 279. Jankelson, I. R., and Lerner, H. H., intravenous galactose liver-function test, A.,

Janot, M. M., and Mouton, M., determination of camphor as 2:4-dinitrophenylhydrazone in concentrated and dilute alcoholic solutions of camphor, A., 873.

Janovskaja, B. I., effect of sulphitising on preservation of vitamin-C, A., 120.

Janse, L. C., Storch reaction [for peroxidase in milk], A., 1554.

Jansen, B. C. P., assay of League of

Nations standard preparation of vitamin- B_1 , A., 1566.

Jansen, E. F. See Hilbert, G. E. Jansen, F. C. M., detection and determination of preservatives, B., 536.

Jansen, W. H., Heyes, J., and Richter, C., application of spectrum analysis to determination of alkalis and alkaline earths. V. Direct photometric determination of alkali metals, A., 43.

Janson, A. See Freudenberg, K.

Jansons, L., Zeeman effect of induced lines in the helium spectrum, A., 915.

Janssen, C. See Ornstein, L. S. Janssen, H. J. See Shell Development Co. Janssen, P. See Archibald, F. M., and Standard Oil Development Co.

Jantsch, G., and Wein, K., rare earth halides. X. M.p., particularly of the bromides, A., 1453.
Jantzon, H. See Kirsch, W.
Janus, R. I., and Schur, J. S., character

of linking in the carbon monoxide molecule, A., 277.

Japolsky, N. S., structure of atomic nuclei, A., 1442.

Jappu, J. G. See Tziurich, L. G. Jaques, A. T. See Jauncey, G. E. M.

Jares, J. J., effect of methylene-blue on oxygen consumption and respiratory quotient of normal and tumour tissue, A., 883.

Jarlöv, E., hormones of the corpus lutcum,

Jarmolinski, M., industrial utilisation of extracted beet slices, B., 854.

Jarmoschkevitsch, A. I. See Blum, E. Jaroslavtzeva, Z. A. See Rutovski, B. N.

Jaroszewicz, W., voluntary hyperpnæa and behaviour of alveolar carbon dioxide, alkaline reserve, and blood-proteins in man, A., 620.

Jarrett, M. E. D. See Britton, H. T. S. Jarrousse, J., oxidation of bisphenyl-pyruvic [a-hydroxy- γ -keto- β -phenyl-abenzylglutarie] acid, A., 73, 1252.

Jarshemskaja, E.J. See Pigulevski, V.V.Jarussova, N., antiscorbutic activity of "marmelad" jelly, onriched, after four months' storage, with vitamin-C by addition of a concentrate of infusion of pine needles, A., 120. Accumulation of the antineuritic vitamin-B in the animal organism, A., 529. Sources of vitamin[-C]. XVII. Apple jam enriched with concentrated pine-needle extract, B., 346. Apple jam with and without added vitamin-C (fir-needle extract) as source of the antiscorbutic vitamin; roast potatoes as source of vitamin-C, B., 617. Cakes of dried carrot, with or without added vitamin-C as fir-needle extract, as source of the antiscorbutic vitamin, B., 618.

See also Efremov, V. V., and Lavrov, B. A.

Jarvis, H., codling-moth control by nonarsenical sprays, B., 341.

Jary, S. G., red spider (Tetranychus telarius, L.) on hops and its control, B., 341. Major insect pests of hops, B., 516.

Jasaitis, Z. See Young, W. C. Jašek, M. See Tomiček, O.

Jasiukevitsch, S. M., effect of particle size on ore flotation, B., 324.

and Chan, G. A., gold flotation, B., 995. and Chumarov, V. J., combination method for dressing tin ore of the Chaptscherang sulphide zone, B., 198.

Jatkar, S. K. K., Raman spectra of quinoline, quinaldine, isoquinoline, and a- and β-picolines, A., 407.

and Padmanabhan, R., Raman spectra of terpenes and camphors, A., 407.

Sce also Kulkarni, B. S., and Mehta, D. N. Jatlov, V. S., and Korzon, E. M., preparation of cryolite from solutions of sodium fluoride and aluminium fluoride, B., 191. Jatzina, R. See Kicsel, A.

Jaubert, G. F., product for regeneration of air for closed-circuit respiratory apparatus, (P.), B., 957. Dehydrating agents for drying gases, (P.), B., 1024.

Jaulmes, P., volatile acids of wine, B., 214. Effect of extractives on distillation of volatile acids of wine, B., 214. Defecation by lime and determination of total. acidity of wine, B., 248.

Jauncey, G. E. M., diffuse scattering of X-rays by crystals, A., 1053. Velocity distribution of atomic electrons by the method of electron impact, A., 1170.

and Bruce, W. A., anisotropy in the atomic vibrations of zine crystals. Evidence from X-ray scattering. II. Diffuse scattering of X-rays from single crystals, A., 1325.

and Jaques, A. T., intensity of the central spot produced by X-rays penetrating piezoelectrically oscillating quartz crystals, A., 1439.

Sco also Zener, C.

Jausseran, C., evolution of latent photographic image, A., 572.

Javillier, M., use of magnesium compounds in agriculture, B., 341.

Javitsch, S. See Dubinin, M. Jayne, D. II'. See Amer. Cyananid Co. Jean, F. P. L., and Lizèe, D. M. F. ageing of alcoholic drinks such as natural alcohols, wines, spirits, and alcoholised liquors, (P.), B., 855.

Jean, M. L., apparatus for determination

of gases, A., 446.

Jeanmot, F., absorption of tannin by acctate silk, B., 881.

Jeavons, W. R. See Rentschler, M. J.

Jedele, A., influence of phosphorus and sulphur on mechanical and technological properties of platinum and palladium, B., 237. See also Feussner, O.

Jedlowski, P., neuro-central regulation of hæmatic nitrogen, A., 220. Hyperazotamia of neuro-central origin, A., 356.

Jefferson, M. E. See Hendricks, S. B. Jefferson, R. E. See Rhead, T. F. E. Jeffery, G. II. See German, II'. L.

Jeffrey Manufacturing Co. See Bakstad, J. R.

Jeffreys, C. E. P. See Borsook, H. Jeglekar, M. S., X-ray scattering and the polarisation field of di-, tetra-, and deca-hydronaphthalene, A., 1186.

Jegorov, K. E. See Malinovski, A. E. Jeker, L., microscopy of fat absorption in

the normal gut and inhibition by iodoacetic acid and phloridzin, A., 1550.

Sce also Verzár, F. Jelen, F. C. See Jones, G.

Jelinek, H. See Klatt, R. Jelley, E. E., improved grating microspectrograph and its use in chemical

microscopy, A., 1084. Jellinek, K., and Schütza, II., equilibria $Cl_2 + 2KBr \rightleftharpoons 2KCl + Br_2$ and $Br_2 +$

 $Cl_2 \rightleftharpoons 2BrCl, A., 681.$ Wlodarski, W., and Arczynski, heterogeneous gaseous equilibria NaCl +HBr ⇌ NaBr+HCl and KCl+HBr ⇌ KBr+HCl, A., 681.

See also Hintz, H., and Jahn-Held. W. Jellinghaus, W., crystal structure of Fe₃Ti, A., 669. System iron-cobalt-copper, A.,

Jemac Akt.-Ges., vanillin, (P.), B., 348. Jemelianov, A. See Michlin, D.

Jemison, G. M., influence of weather factors on moisture content of light fuels in forests of the northern Rocky Mountains, B., 422.

Jen, C. K., absorption coefficient of H-, A., 1175.

Jenaer Glaswerk Schott & Gen, ceramic bodies, (P.), B., 498. Porous filter bodies of particles of glass, (P.), B., 933. Jenckel, E., m.-p. diagram of boron trioxide-sodium metaborato melts, A., 797.

Jenckes, E. K. See Fraser, Hugh J.Jendrassik, L., and Dziobek, L., biochemical gravimetric methods. V. Determination of sodium with the torsion balance, A., 1572.

Jeney, A. von, effect of arginine and of liver and stomach extracts on vitamin-B deficiency in pigeons, A., 390. and Sokoray, L., increase in blood-polypeptides in phenylhydrazine-poisoned dogs, A., 1550.

Jenicek, L., characteristics of electrolytic metals, B., 890.

Jenkins, A. E. See Massey, L. M. Jenkins, C. H. M., Tapsell, H. J., Mellor, G. A., and Johnson, A. E., behaviour of carbon and molybdenum steels at high

temperatures, B., 887. Jenkins, E. W. See Cummings, M. B. Jenkins, F. A., alternating intensities in

the spectrum of P₂, A., 1309. See also Nolan, P., Strait, L. A., and Wooldridge, D. E.

Jenkins, G. H., calculation of flow of viscous fluids (e.g., massecuites and molasses), B., 710.

Jenkins, G. I. See Hammiek, D. L.

Jenkins, G. L., and Bruening, C. F., assay of hypophosphites official in the National Formulary, B., 475. Assay of syrups containing hypophosphites official in the National Formulary, B., 905.

and Dunker, M. F. W., assay of phenol in official preparations, B., 123.

and Manchey, L. L., use of the earthworm for evaluation of vermicides, B., 620.

See also Goldstein, S. W.

Jenkins, H. G. Sco Gen. Electric Co.

Jenkins, H. O., dipole moments of certain polynitro-compounds, A., 924. Electric dipole moments of nitrophenols, A., 1051. Dipole moments of benzoquinone, beryllium acctylacctonate, basic beryllium acetate, and o-nitrophenol, A., 1183. Dipole moments of nitrophenols, A., 1183.

See also Brockway, L. O.

Jenkins, R. L., and Swan Res. Inc., coated, transparent [waterproof] sheets of cascinates, (P.), B., 802.

Jenkins, R. R., and Sayre, C. B., chemical studies on open-pollinated, top-cross, and hybrid inbred strains of yellow sweet maize in relation to quality of the canned product, B., 712.

Jenkins, S. II., biological oxidation of carbohydrates. V. Decomposition of cellulose in the activated-sludge process and in percolating filters, B., 526.

Jenkins, S. S., autoxidation of ketones, A., 333.

Jenkner, A., requisite properties of a benzol-absorbing oil, B., 725.

Jenks, H. N., experimental studies of bio-filtration, B., 956.

Jenness, L. G., and Davis Emergency Equipment Co., catalysts, (P.), B.,

Jennings, D. S. See Webb, D. II.

Jennings, J. C., and Dick & Co., Ltd., W. B., cable-impregnating compounds, (P.), B., 333.

Jennings, J. S., Wardlaw, W., and Way, W. J. R., esters of titanium, A., 821.

Jennings, O. E., smoke injury to shade trees, B., 210.

Jennings, V. W. See Pilkington Bros. Jennison, H. C., mereurous nitrate test [for copper alloys], B., 278.

Girvin, W. S., and Amer. Brass Co., electrode for vacuum tubes [for floodlighting], (P.), B., 605.

Montgomery, R. B., and Amer. Brass Co., deoxidised copper and alloys, (P.), B.,

Jennison, H. M., and Cooley, L. M., extraction and separation of the chloro-

phyll pigments, A., 651. Jenny, A., [producing a] photo-image on electrolytically oxidised aluminium (Sco-Foto-process), B., 476. Effective protection of copper-containing aluminium alloys from corrosion by means of

Eloxal treatment, B., 1160. Jenny, F. See Bruman, F.

Jenny, H., simple kinetic theory of ionic exchange. I. Ions of equal valency, A., 792.

See also Kelley, W. P. Jensen, A. Scc Jensen, V. Jensen, A. T., fluorine and ammonia as sources of error in determination of phosphate by the [hydroxy-]apatite method, A., 442. Jensen, B. N. See Hagedorn, H. C.

Jensen, C. O., and Haley, D. E., nicotine content of eigarette smoke, B., 252.

Jensen, H., (Baltimore) chemical inter-relationships in the cholane group, A., 326. Toad poisons. VIII. De-

hydrogenation of einobufagin, A., 340. Evans, E. A., jun., Pennington, W. D., and Schock, E. D., action of various reagents on insulin, A., 902.

See also Crowfoot, (Miss) D. M. Jensen, II., (Hamburg), existence of negative ions according to the statistical model, A., 1171. Quantum theory calculations for alkali halide lattices, A., 1188.

Jensen, K. A., dipole measurements with isomeric plato-complexes, A., 12. Constitution of thioether compounds of platinum. I. and II., A., 195, 410.

and Bak, B., complex compounds of dicarboxylic acid hydrazides, A., 1078. and Rancke-Madsen, E., complex compounds of semicarbazides, A., 692. See also Biilmann, E.

Jensen, K. E., purification of waste water from yeast factories, B., 766.

Jensen, L. B., and Industrial Patents Corp., meat-treating method, (P.), B., 1127. and Urbain, W. M., delicate test for bloodpigments, A., 1134. Bacteriology of green discoloration in meats and spectrophotometric characteristics of pigments involved, B., 857.

See also Urbain, W. M.

Jensen, L. D., pulverulent chromium, (P.), B., 26.

Jensen, N. See Nielsen, L.

Jensen, O. V., preventing infection of milk, (P.), B., 953.

Jensen, P. See Ruggli, P. Jensen, P. B., importance of growthpromoting substances in plant production, B., 563.

Jensen, V., and Jensen, A., antiseptic action of certain metals, A., 115.

Jensen-Salsbery Laboratories, Inc. Sec Austin, J. A.

Jenssen, J. D. See De Jahn, F. W. Jentgen, H., [viscose] staple-fibre pro-

duction, B., 14. Jephson, A. C., Custer, E. B., and Nat.

Radiator Corp., eathode for electrolytic cells, (P.), B., 1214.

and Nat. Radiator Corp., electrolytic deposit of iron, (P.), B., 459. Electrolytic cell, (P.), B., 555.

Jeppesen, C. R., emission spectrum of D_2 in the extreme ultra-violet, A., 915. Jeppesen, M. A., $^{1}\Sigma_{-}^{1}\Sigma$ band system of

copper deuteride, A., 1317.

Jepson, C. See Ardern, E.

Jérémine, E., Hierro and Gomera Islands (Canary Archipelago), A., 1088.

Jerjomin, G. P. See Scharpenack, A. E. Jermolajeva, I. See Tschesnokov, V. Jermolenko, N., and Bondarin, V., cellulose

oxidation in protecting media, B., 1085.

and Levina, S., swelling power of caoutchouc in solvent mixtures in relation to their dielectric polarisation, A., 680.

and Novikova, E., catalysis of hydrogen peroxide [decomposition] by iron salts, λ., 167.

Jermstad, A., and Ostby, O., extracts of cinchona bark and bearberry leaves, B., 812.

fejev, B. V., and Mochalov, K., method of investigating catalyst sur-Jerofejev, faces, A., 1471.

Sec also Kobosev, N. I.

Jerzmanowska-Sienkiewiczowa, Z., condensation of esters of unsaturated acids with carbamide. II. and III., A., 468, 1125.

Jespersen, J. C., [extraction and determination of morphine in the haulm of] Danish-grown opium poppies, B., 219.

Jesse, W. P. See Allison, S. K.

Jessen, F. W., and Lightfoot, J. II.,

compressibility of butane-air mixtures below one atmosphere, B., 866.

Jesser, N., honey diastase, B., 1124. Jesserer, H., the biuret reaction. Metal-biurct compounds. III. Protein compounds of copper, nickel, and cobalt, A., 1398. See also Lieben, F.

Jesson, W. F. See Imperial Chem. Industries.

Jessop, G. R. See M.-O. Valve Co. Jessup, D. A. Sce Appel, W. D.

Jessup, R. S., heats of vaporisation of eight gasolines, B., 227.

Jette, E. R., and Fetz, E., röntgenographic and hardness investigations on nickelrich nickel-tin alloys, B., 375.

and Foote, F., precision determination of lattice constants, A., 45. Ironchromium alloy system, A., 1193.

See also Andersen, A. G. H., and Fetz, E. Jeunehomme, W. See Goldfinger, P.

Jevons, W., ultra-violet band systems of SiCl, A., 1047.

Jewett, J. E., and Amer. Cyanamid & Chem. Corp., monocarboxylic acids [benzoic acid] and their derivatives, (P.), B.,

Sec also Nat. Aniline & Chem. Co.

Jewett, M. G., Harris, S. C., and Chain Belt Co., heat-treated cast iron, (P.), B., 795.

Jewitt, W. See Bruce, E. L. Jewsons, Ltd., and Humphrey, C. D., waterproof fabries, (P.), B., 692.

Ježek, \overline{B} . See Uzel, R.

Jeżewski, M., dielectric constants of strong electrolytes and the Debye-Falkenhagen theory, A., 285.

and Miesowiez, M., conductivity of pazoxyanisole, A., 1056.

Wierzbicki, M., and Kameoki, J., dielectric constants of dilute solutions of strong electrolytes at various temperatures, A., 425.

Jezierski, T. W., and Maciejewski, M., 9:10dihydroxy-9:10-di-n-amyl-9:10-dihydrophenanthrene and 2:2'-di-n-hexoyldiphenyl, A., 475.

Jezierski, W., effect of hormones on the development of tumours, A., 626.

Jilek, A., Kot'a, J., and Vřeštál, J., separation of lead from copper, cobalt, nickel, and cadmium by carbon dioxide in pyridine solution, A., 43.

and Ryšánek, A., separation of tungsten from tin by 8-hydroxyquinolino in presence of sodium oxalate, A., 1083.

and Vřeštál, J., determination of cobalt by electrolysis at controlled potentials and using hydrazine hydrate and chloride as depolarisers, A., 444.

Jiménez Diaz, C., Bassadone, E., and Clariana, S., phosphatase of the plasma E., and and its variations in disease, A., 503.

Jimeno, E., and Grifoll, I., physico-chemical interpretation of the action of [steel pickling] inhibitors, B., 889. Electrochemical interpretation of the [metal-]cleaning process, B., 1161.

Grifoll, I., and Morral, F. R., inhibitors in pickling, B., 743. and Modolell, A., behaviour of grey cast

iron between 650° and 800°, and the influence of silicon, B., 887.

Modolell, A., and Morral, F. R., welding, B., 795.

Jirak, L. W., determination of starch in potatoes, B., 1063.

Jirgensons, A. See Jirgensons, B.

Jirgensons, B., coagulation of solvated sols by organic substances and salts. VI. Temperature stable albumin sols which coagulate on cooling, A., 426. Gelation of albumin in aqueous propyl alcohol containing salts; thixotropy and syneresis of albumin-propyl alcohol gel, A., 563. Flocculation of lyophilic colloids by non-electrolytes and ŝalts, A., 1461.

and Jirgensons, A., coagulation of solvated sols by organic substances and salts. VII. Gelatin and starch

sols, A., 1201
Jiriste, J. Sec Quadrat, O.
Jirka, F. J., and Scuderi, C. S., urinolysis in fat metabolism, A., 362.

Jirsa, F., reactions between aqueous solutions of silver nitrate, lead nitrate, and potassium permanganate, A., 172.

Jo, M., and Nagai, S., influence of manganese on mechanical properties of rolled steels. III., B., 197.

Joachim, A. W. R., Ceylon soils. II. General characteristics of Ceylon soils, typical soil groups of the island, and scheme of classification, B., 33.

and Kandiah, S., Coylon soils. V. Soils associated with limestone, B.,

1010.

and Pandittesekere, D. G., Coylon soils. IV. Light sandy soils, the red dry zone, and semi-humid soils, B., 1010. Sco also Haigh, J. C.

Joachim, J. See Kodieck, E., and Wenig,

Joachimoglu, G., and Klissiumis, N., local irritant action of quinine preparations, A., 634.

Joanid, J., and Nepveux, F., relations between oxygen consumption, carbon dioxide production, and expired air during respiration in man, A., 874.

Joassin, F. See Piraux, E.
Job, P., hydrochloric and hydrobromic solutions of the salts of cobalt, copper, and bivalent nickel, A., 1336.

Jobling, J. W., and Sproul, E. E., transmissible agent in the Rous chicken sarcoma no. 1, A., 1406.

Jobling-Purser, E. J., moulded heat-resisting glass ware, (P.), B., 455.

Jochem, O., recovery of vanadium from substances of poor vanadium content,

(P.), B., 1206. Hennig, T., and Zsehimmer & Schwarz Chem. Fabr. Dölau, aluminium formate, (P.), B., 1082.

Jochmann, F., raw materials for production of opalescence in the glass industry, with reference to their varying light effect and glass-forming substances, B., 454.

Joël, W. See Mainzer, F. Jørgensen, G., husk content of cottonseed

cake, B., 557.

3 201

Jorgensen, H., inhibition of enzymic proteolysis by oxidising agents; nature of the action of potassium bromate and analogous substances as improvers of wheat flour. II., A., 379. Existence of powerful but latent proteolytic enzymes in wheat flour, B., 663.

Joff, O. E., improved wood pulping by the

Sudakov process, B., 185.

Joffe, J. S., diaryls and their derivatives. VII. Oxidation of 2-hydroxyanthracene. X. Nitration of 2:2'-dihydroxy-1:1'-dinaphthyl, A., 203, 1503. New method of chlorination of β naphthol and its derivatives, B., 440. "Terra rossa" and red loams and their relation to other zonal soil types, B., 513.

[with Gratschev, I. V.], diaryls and their derivatives. V. Optical activity of 2: 2'-dihydroxy-1: 1'-dinaphthylsul-phonic acids, A., 67.

[with Kuznetzov, S. G.], diaryls and their derivatives. IV. Oxidation of naphthol-6-sulphonie acid and 2:6dihydroxynaphthalene, A., 67.

[with Smoljanitzkaja, I. Z.], diaryls and their derivatives. VI. Oxidation of β -naphthol-3-carboxylic acid, A., 203. and Kolodny, L., fixation of potassium

in soils, B., 1059.

and Krilova, M. I., diaryls and their derivatives. XI. Structure and composition of the complex compound of iron with β -naphthol-3-earboxylic acid, A., 1508.

Kuznetzov, S. G., and Litovski, S., diaryls and their derivatives. VIII. Influence of acidity of the medium on interaction of β -naphthol with ferric

chloride, A., 720.
Kuznetzov, S. G., and Panov, A. A., diaryls and their derivatives. IX.

Sulphonation, A., 1503. and Soloveitschuk, V. J., reaction of p-phenylenediamine and its derivatives with diazonium salts, A., 1501.

Sudakov, S. D., and Kuznetzov, S. G., new diphenylamine derivatives, A.,

1501.

and Tsehigrov, M. A., diaryls and their derivatives. XII. Selective sorption by vegetable fibres of azo-dyes prepared from dihydroxynaphthalenes polyhydroxydinaphthyls, and 1502.

Joffe, O. G. See Grabovski, V. A.

Joffe, V. S., anode process in electrolysis of aqueous alkali chloride solutions with impregnated and non-impregnated graphite electrodes. I. and II. Liberation of chlorine and oxygen at the anode. III. Influence of impregnation of the graphite electrode on the anode process, A., 431.

and Stroganov, M. M., anode process in electrolysis of aqueous alkali chloride solutions with impregnated and nonimpregnated graphite electrodes. IV.

Electro-capillary phenomena, A., 431. Jofinova-Goldfein, E. M. See Teis, R. V. Jogarao, C. V., variation of intensity of scattered light with temperature, A., 778.

Joglekar, M. S., and Thatte, V. N., Raman spectra of organic borates, A., 547.

Johannessohn, F., Rabald, E., and Rare Chemicals, Inc., extraction of sex hormones, and a compound of a sex hormone with an alkaloid, (P.), B., 716.

Johannsen, F., [ore-]roasting furnace, (P.), B., 458.

Johannsen, O., zinc from blast-furnace dust, B., 889.

Johansen, B., extension of the Paschen series, A., 127.

Johansson, C. H., and Linde, J. O., X-ray and electrical investigation of the coppergold system, A., 280.

Johansson, E. H. E., providing crucibles and tools for use in contact with molten masses with a protective coating, (P.), B., 1184.

John, A. See Toivonen, N. J. John, H., and Beetz, P., carvaerol. V. Benzyl ethers of acylated methylisopropylphenols, A., 76.

John, H. J., treatment of hyperinsulinism with insulin, A., 505.

John, P. O., refractivity and dielectric constant of carbon dioxide at high pressures, A., 1182.

John, W., glyoxalinecarboxylic esters, A., 211, 485.

John, W. G., and Evans, E. J., Hall effect and some other physical constants of alloys. V. Antimony-silver series, A., 1332.

Johner, W., and Stahel, E., temporal sequence of a- and y-radiation of radium, A., 5.

Johns, C. K. See Lochhead, A. G.

Johns-Manville Corporation. See Clarvoe, G. W., Collier, S., Cummins, A. B., Johnson, H. E., O'Neil, C. J., O'Brien, H. J., Powell, E. R., Rembert, E. W., Schultz, C. C., Seigle, W. R., Toohey, E. A., Townshend, B., Williams, E. R., and Ximenez, M. R.

Johnson, Albin, silk soaking, B., 230. Johnson, Alfred, Howson, C. E., and Combustion Utilities Corp., synthetic resins, (P.), B., 288.

Johnson, A. A., curing of concrete, (P.), B.,

Johnson, A. B. See Swain, R. E.

Johnson, A. E. See Jenkins, C. H. M.

Johnson, A. G., and Shaw, L. I., ceramics in the telephone, B., 544.

Johnson, A. H., and Ward, F. C., relation between viscosity of non-sweetened condensed skim-milk and baking quality, B., 1175.

Johnson, C. H., optical activity. IV. Racemisation of optically active oxalates, A., 190.

and Hamblin, F. T., radioactive isotopes of bromine, A., 1315.

and Mead, A., optical activity. V. Racemisation of the strychnine salts of dand l-chromioxalate in the crystalline state, A., 190.

Sec Beese, N. W. D.

Johnson, D. F., isolation of Glaucoma ficaria, Kahl, in bacteria-free cultures: growth in relation to the $p_{\rm H}$ of the medium, A., 1559. Johnson, D. P. See Ostrofsky, M.

Johnson, E. A., electrodeposition of tin for

refrigerating purposes, B., 152.

Johnson, E. B., determination of small quantities of benzoic acid, A., 745.

Johnson, E. L. See Du Pont de Nemours &

Co., E. I. Johnson, F. F., and Fischer, L., fluorides in wine, B., 249.

Johnson, F. H., action of 2:4-dinitrophenol on respiration and oxidation of Aerobacter cloacæ, A., 641.

Johnson, F. M. G. See Williams, A. R.

Johnson, F. W. See Du Pont de Nemours & Co., E. I.

Johnson, G. E. See Baker, B. L. Johnson, H. See Kleiber, M.

Johnson, H. E., and Johns-Manville Corp., permeable ceramic material, (P.), B., 61.

Johnson, James, relation of root pressure to plant disease, A., 1434. See also Hoggan, I. II.

Johnson, John, [silver-solder] alloy, (P.), B.,

Johnson, J. M. See Maver, M. E., and Voegtlin, C.

Johnson, J. R. See Miller, L. L.

Johnson, J. S., porosity in metallic arcwelding under specified conditions, B.,

Johnson, J. W., and United Shoe Machinery Corp., method and composition for use in the cement attaching of shoe parts, (P.), B., 707.

Johnson, L. P. V., physiology of delayed germination in Avena fatua, A., 257.

Johnson, M., and Hanke, M. E., iron content and oxygen capacity of blood, A.,

Johnson, M. J., and Peterson, W. H., peptidase system of Aspergillus parasiticus, A., 244.

Johnson, M. O., [agricultural] spray composition, (P.), B., 709.

and California Packing Corp., compound for fumigation of soils, (P.), B., 342.

Johnson, N. G., relationships between atomic number and effect of chemical binding on the Ka_1 , 2 doublet of some of the lighter elements, A., 1311. Johnson, O., glue, (P.), B., 290.

See also Johnson, T., and St. John, J. L.

Johnson, O. H. See French, H. E. Johnson, O. W., and Williams, P. S.,

combustible gas analysis apparatus, (P.), B., 820.

Johnson, R. See Gen. Eng. Co. (Radcliffe),

Johnson, R. E., isolation of pyruvic acid from the blood of vitamin- B_1 -deficient pigeons, A., 253. a-Glyeerophosphoric acid and brain metabolism, A., 237.

and Edwards, H. T., pyruvic acid in urine after hard exercise, A., 1406.

Johnson, R. F. See Woods, E. Johnson, R. I. See Crosse & Blackwell. Johnson, R. L. See Ross, J. E.

Johnson, Robert L., effect of salicyl derivatives on isolated frog and turtle hearts, A., 1020.

Johnson, R. N., testing of pneumatic and solid tyres, B., 31. Modern nonmetallic denture bases, B., 419.

Johnson, R. P., and Shockley, W., electron microscope for filaments: emission and adsorption by tungsten single crystals, A., 553.

Johnson, S. R. See Hogan, A. G.

Johnson, S. W., cataract and ascorbic acid in the guinea-pig eye, A., 1161. Johnson, T., and Johnson, O., nature of

disease-resistance in cereals. III. Organic nitrogen content of mature and immature tissues of the wheat plant in relation to stem-rust resistance, B.,

Johnson, T. B., and Litzinger, A., pyrimidines. CLIff. Structure of vitamin- B_1 , A., 1126.

and Livak, J. E., pyrimidines. CXLIX. Synthesis of aryl-substituted dihydrouracils and their conversion into uracils, A., 485.

Johnson, T. B., and Sharp & Dohme, Inc., p-tolyl p-anisyl sulphide, (P.), B., 875. lodated [iodo-derivatives of] hydroxydiphenyl sulphide, (P.), B., 1178.

and Sprague, J. M., thiocarbamide as key reagent for preparation of aliphatic sulphonyl chlorides and bromides, A., 974. Preparation of alkanesulphonyl chlorides, A., 1229. See also Hotchkiss, R. D., Litzinger, A.,

Moore, M.L., and Sprague, J.M.Johnson, T.H., what fraction of the

primary cosmic radiation is positive? A., 133.

Johnson, T. J. See Craft, B. C. Johnson, W. See Taylor, T. I. Johnson, W. A. See Butts, A.

Johnson, W. C., and Martens, R. I., density of solutions of alkali metal halides in liquid ammonia, A., 279. See also Hogness, T. R.

Johnson, W. J., utilisation of raw brown coal for steam-raising at Yallourn, B., 723. Johnson, W. S., swimming-pool sanitation

control, B., 1238.

Johnson, W. T., jun. See Frazier, W. C., and Ramsdell, G. A.

Johnson Bronze Co. See Davenport, $E.\ L.$ Johnson Co., $M.\ C.$ See Neff, $J.\ W.$

Johnson-Losee Corporation. See Losee,

Johnson, Matthey & Co., Ltd. See Powell, A. R.

Johnston, C. G. See Andrews, James C. Johnston, E. S., aërial fertilisation of wheat plants with carbon dioxide, B., 292.

Johnston, F. See Carbide & Chemicals Corp. Johnston, H. L. See Flory, P. J., Hall,

W. H., and McDowell, L. A. Johnston, H. W. See Jones, G. D. O.

Johnston, J., research in the steel industry, B., 993.

Johnston, J. A., and Maroney, J. W., carbohydrate metabolism. III. Relation of salt and water to oxidation of glucose, A., 755.

Johnston, J. E. See Skinner, H. W. B. Johnston, J. E. McF. See Greeves, F. D. Johnston, J. M. See Maclachlan, W. W. G. Johnston, M., and Dennison, D. M., interaction between vibration and retation for symmetrical molecules, A.,

Johnston, R. L., comparative effects of barbituric acid derivatives on isolated heart, A., 1415.

141.

Johnston, R. S., and Roebling's Sons Co., J. A., ferrous welding electrodes, (P.), B., 1051.

Johnston, W. D., jun., nodular, orbicular, and banded chromite in northern California, A., 1357.

Johnston, W. H. See Aamodt, O. S.

Johnston, W. W., and Wynne, A. M., amylase of Clostridium acetobutylicum, A., 383.

Johnstone, E. W., and Edmonds, W. R., interference of algae with tests for residual chlorine [in water], B., 254.

Johnstone, H. F., and Illinois University. [method of] removal of sulphur dioxide from fine gases, (P.), B., 789. Apparatus for removal of sulphur dioxide from flue gases, (P.), B., 789.

Johnstone, H. W. See Edwards, D.

Jointless Walls & Ltd., Ceilings, MacTaggart, E. F., and Margetson, O., plaster board, (P.), B., 741. See also MacTaggart, E. F.

Jois, H. S., and Manjunath, B. L., identity of isopsoralene, a component of the seeds of Psoralea corylifolia, L., with angelicin from the roots of Angelica Archangelica, L., A., 858. See also Späth, E.

Jokl, E., carbohydrate metabolism of warm-blooded animals during muscular work, A., 1545.

Jolibois, P., chemical reactions in rarified gases under the influence of electric discharges, A., 36. Structure of the spark striking to the surface of a solution, A., 655.

Burgevin, H., Guyon, G., and Boullé, A., fertilising value of various forms of phosphoric acid, B., 384. and De Beco, P., Faraday's law and

electrolysis by spark, A., 799.

and Olmer, F., synthesis of ammonia by cathodic sputtering of lead, A., 687.

Joliffe, N., Brandaleone, H., and Most, H., effect of protein on carbohydrate tolerance of two patients having combined diabetes mellitus and pernicious anæmia,

Joliot, F., Lazard, A., and Savel, P. synthesis of radio-elements with deuterons accelerated by an impulse generator, A., 6.

See also Joliot-Curie, (Mme.) I.

Joliot-Curie, (Mme.) I., and Joliot, F., artificial preparation of radioactive elements, A., 949.

Jolivet, H., corrosion of metals and alloys at high temperatures, B., 548.

Jolkver, E. E. See Tscherkassov, A. V. Jolles, E., reactions of maleimide, A., 459. Azoxycarboxylic derivatives, A., 979. Diazo-resins. III., A., 980. [with Botrini, M.], glucoside derivatives,

A., 457.

 $\begin{array}{lll} \mbox{Jolley, $L.J$.} & \mbox{See Emeléus, $H.J$.} \\ \mbox{Jolly, $J.W$.} & \mbox{See Chance Bros. \& Co.} \end{array}$

Jolson, I., determination of copper, A., 1221. Joly, J. M., variations of the respiratory quotient and basal metabolism during avitaminosis-B, A., 904.

See also Lecoq, R.

Jónás, J. See Szebellédy, L. Jonass, A., and Kobrin, M., phosphoric acid from flotational Riazan phosphorite, B., 638.

Jones, A., acid-resistant varnishes for tinplate food containers, B., 1108.

Jones, A. C., and Lebanon Steel Foundry, high-silicon and high-manganese steel, (P.), B., 1045.

Jones, A. G. See Evers, N.

Jones, A. H. See Lochhead, A. G. Jones, A. J. See Toal, J. S.

Jones, B., apparent cases of liquid-crystal formation in p-alkoxybenzoic acids, A., 202. Halogenation of phenolic ethers and anilides. V. Alkyl and ωsubstituted-alkyl ethers. VI. Benzyl and substituted-benzyl ethers. VII. Method of determining proportions of o- and p-isomerides in a mixture, A., 719, 1242. Apparent cases of liquid-crystal formation in p-alkoxybenzoic acids, A., 722.

See also Baddeley, G., and Bennett, G. M.

Jones, C. H. See Newlander, J. A.Jones, C. L., and Adico Development Corp., revivification of adsorbents, (P.), B., 1024. [Blocks of] solid carbon dioxide, (P.), B., 1092,

Jones, D. B. See Horn, M. J.

Jones, D. C. See Broughton, G.

Jones, D. G., coking of petroleum residues,

Jones, D. J., and Buller, E. L., analyses and softening temperatures of coal ash from coals in the Northern anthracite field, B., 224.

Jones, D. T. Sec Basore, C. A.

Jones, E. A., ferro[-silicon] alloys, (P.), B.,

Jones, E. B. See Brose, H. L.

Jones, E. G., and Foster, E. W., production of silver mirrors by cathodic sputtering, A., 955.

Jones, E. I., McCance, R. A., and Shackleton, L. R. B., rôle of iron and silica in structure of the radular teeth of certain marine molluses, A., 361.

Jones, E.J. See Blewett, J.P. Jones, E.P. See Dixon, L.F.

Jones, Edwin P., Dempsey, J. M., and Champagne Paper Corp., paper pulp from fibrous material, (P.), B., 1088.

Jones, E. R., use of nitric acid in the serological diagnosis of cattle trypan-

osomiasis, A., 884.

Jones, Ewart R. See Bradfield, A. E.

Jones, F. A. See Dunlop Rubber Co.

Jones, F. L., electron energies and excitation in the helium positive column,

Jones, F. W., jun., manufacture of articles from synthetic resinous compositions,

(P.), B., 69. Jones, G., and Fornwalt, H. J., viscosity of solutions of salts in methyl alcohol, A., 22. Viscosity of deuterium oxide and its mixtures with water at 25°, A., 279. Viscosity of aqueous solutions of electrolytes as a function of concentration. III. Casium iodide and potassium permanganate, A., 678.

and Jelen, F. C., coefficient of expansion of silver iodide and of the halides of thallium, A., 279.

and Prendergast, L. T., transference number of lanthanum chloride as a function of concentration, A., 1206.

Jones, G. D. O., Morris, W. S., and Johnston, H. W., fibre classification using three screens, B., 13.

Jones, G. W., and Kennedy, R. E., pre-

vention of gas explosions by controlling oxygen concentration, B., 177.

Jones, H., galvomagnetic effects in bismuth. A., 1188.

Jones, H. A., and Smith, C. M., derris and cubé: approximate chemical evaluation of their toxicity, B., 814.

Jones, H. G., thermal expansion of cast and rolled zine, A., 21.

Jones, H. L. B. See Daudt, H. W., and Du Pont de Nemours & Co., E. I.

Jones, H. W. See Barnette, R. M. Jones, I. See Brit. Thomson-Houston Co.

Jones, Islwyn, and Soper, F. G., effect of temperature on ionisation constants of some dibasic acids, A., 289.

Jones, Ivor, and Lynn, E. V., toxicity of barbital derivatives, A., 1293.

Jones, I. W., microscopic features of certain Alberta coals, B., 1136.

Jones, J. A., effect of additions of nitrogen on properties of high-chromium iron alloys, B., 374.

Jones, J. E. See Brit. Celanese. Jones, J. H. See Brown, W. S., and

Edwards, A. H.

Jones, James Hazlitt, relation of serumphosphates to parathyroid tetany, A., 1408.

Jones, J. I., and James, T. C., addition of halogens to unsaturated acids and esters. V. Bromination of m-methoxycinnamic acid and its ethyl ester, A., 70.

Jones, J. I. M., tendering and fading of cellulose materials on exposure, B., 982. Jones, J. K. N. See Haworth, W. N.

Jones, J. L., and Barlow, O. W., clinical comparison of various ergot preparations on the post-partum human uterus, B., 523.

Jones, J. R. E., toxic action of heavy metal salts on the three-spined stickleback (Gastrosteus acullutus), A., 372.

Jones, K. B. W. See Shaw, W. S. Jones, K. K. See Schmidt, C. R.

Jones, L. A., and Russell, M. E., minimum useful gradient as criterion of photographic speed, B., 124.

Jones, L. D., and Sharples Specialty Co., centrifugal treatment [of bacilli] and mechanism therefor, (P.), B., 224. Distillation of mineral oil, (P.) B., 535. See also Sharples Specialty Co.

Jones, L. H., diagnosis of plant troubles with diphenylamine, A., 1432.

and Haskins, H. D., distribution of roots in porous and non-porous plant containers, B., 35.

Jones, L. S., control of Anarsia lineatella in California, B., 1118.

Jones, L. T. See Union Carbide & Carbon Res. Labs.

Jones, M. See Cassie, A. B. D., and Imperial Chem. Industries.

Jones, M. E., and Steggerda, F. R., water metabolism in normal and hypophysectomised frogs, A., 232.

Jones, M. T., absorption of ultra-short X-rays by elements of high atomic number, A., 1040.

and Cuykendall, T. R., absorption of X-rays in the wave-length range 50 to 200 X, A., 1311.

See also Cuykendall, T. R.

Jones, N. C., utilisation of wood waste, B.,

Jones, O., determination of nitrates and nitrites in meat, B., 250.

Jones, P. II. See Hoots, H. W.

Jones, P. W., and Rostone, Inc., stone-like structural material, (P.), B., 456.

Jones, R. C. B. See Wilson, G. V. Jones, R. F. See McKean, J. G.

Jones, R. L., and Linstead, R. P., fused earbon rings. XI. Action of aluminium chloride on decahydronaphthalene, A., 834.

Jones, R. M., and Aldred, J. W. II., guanidine from cyanamide; preparation in presence of ammonium phosphates, B.,

Jones, Ralph N. See Hurd, C. D. Jones, Richard N. See Heilbron, I. M., and Jackson, Harold.

Jones, R. S. Sec Robinson, Robert A.

Jones, R. V., metallic films, A., 1225. and Rollin, B. V., formation of metallic blacks on thin foils by evaporation, A.,

Jones, T. G. H., reactions of tagetone. I., A., 317. Constitution of campnospermonol, A., 336.

Jones, T. II., stains on rayon, B., 787.

Jones, T.O. See Hall, N.F.

Jones, T. S. G., detection of lactose and glucose in milk, B., 615. See also Graham, W. R., jun.

Jones, W., cooling of air and water, (P.), B., 623.

Jones, W. B., and Cellovis, Inc., treatment [stabilisation] of nitrated cellulose fibres, (P.), B., 1088.

Jones, W. D., influence of surface cuprous oxide inclusions on porosity of hottinned coatings on copper, B., 501.

Jones, W. E. See Heilbron, I. M.

Jones, W.L., and Roddis Lumber & Veneer Co., adhesively joining [sheet] metal and wood, (P.), B., 796.

Jones, W.O. See Imperial Chem. Industries. Jones, W. R. D., magnesium-copper alloys. V. Copper-rich alloys, B., 237.

Jones, W. S., and Christiansen, W. G., comparison of the spectrometric method and antimony trichloride test for determination of vitamin-A potency [of cod-liver oil], B., 334.

and Squibb & Sons, E. R., devitalisation of bacteria, (P.), B., 1177.

Jones & Laughlin Steel Corporation. See Campbell, Robert W., and Graham, Herbert W

Jongbloed, J., anoxia and experimental catatonia, A., 629.

and Noyons, A. K. M., oxygen consumption and carbon dioxide production of frog's retina in darkness and light, A., 1409.

Jongmans, W. J., Koopmans, R. G., and Roos, G., nomenclature of coal petrography, B., 257.

Jonker, J. M. C., and De Haas, W. J., experiments on a superconductive alloy in a magnetic field, A., 23.

Jonnard, R., stability of blood-serum, A., 621. Relations between electric charge and hydration of flocculation of blood-serum, A., 877. Interferometer for biological work, A., 1038. Interferometry of the refraction of blood-scrum as a function of the concentration, A., 1284. Interferometry of the refraction of serum in presence of foreign substances, A., 1284.

and Zuckerkandl, F., interferometry of the refraction of serum in presence of electrolytes, A., 1284.

Jonsson, A. E., rotating or oscillating drums for drying, heating, or cooling granular or powdered materials, (P.), B., 1072.

Jónsson, G., manufacturing meal and train oil from train-oil sediment, (P.), B., 812. Jonxis, J. II. P. See Brinkman, R.

Joos, G., and Böhm, II., effect of heavy water of crystallisation on line absorption spectrum of chrome alum, A., 135.

Jooste, P. E. F. See Rhodes, C. C.

Joplin, G. A., petrology of the Hartley district. III. Contact metamorphism of the upper Devonian (Lambian) series, A.,

Jordahl, O. M., crystal structure from data on magnetic susceptibilities, A., 275.

Jordan, C. B. See Baker, G. Jordan, C. W. See Fulweiler, W. H.

Jordan, E., and Hauser, C. R., conversion of aldoximes into carboxylic acids by hot alkali; elimination of water from aldoximes, A., 1109.

See also Hauser, C. R.

Jordan, E. B., and Bainbridge, K. T. mass spectrographic determination of the mass difference ¹⁴N+¹H-¹⁵N and the nitrogen disintegration reactions, A., 1044.

See also Bainbridge, K. T. Jordan, E. O. See Burrows, W. Jordan, H. E., laboratory control of waterpurification plants, B., 574.

Jordan, L. See Diggs, T. G.

Jordan, L. A., dyeing of three-fibre lace, B., 231. Unshrinkable woollens, B., 363. Jordan, O., scientific development of coating materials in the principal industrial countries, B., 1217.

Jordan, P., light quanta and neutrinos, A., 543. Theory of the atomic nucleus, A., 543. Exchange rules in the neutrino theory of light, A., 660. Interaction of "spinor"-particles, A., 543. Neutrino theory of light. I., A., 1176. and Kronig, R. de L., light quantum and

neutrino. II. Three-dimensional radi-

ation field, A., 920.

Jordan, W. R., and Randall, L. O., neuropathy in diabetes; lipin constituents of the nerves correlated with the clinical data, A., 505.

Jordanski, B. See Tschukitsehev, I. P. Jordt, H., barium carbonate admixture for protection of concrete exposed to sul-

phate waters, B., 837.

Jores, A., identity of the pigmenting and corticotropic hormones, A., 526.

and Beck, Helmut, melanophore hormone and adrenals, A., 251.

and Will, G., crythrophore and melanophore hormone, A., 251.

Joref, G., and Malterre, M., crops grown in the Santerre region. 1. Wheat, B., 385. Migration of phosphates during podsolisation, B., 1059.

Jorgensen, L. R., grouting by chemical means, (P.), B., 1096.

Jorgensen, T., jun. See Crawford, F. II. Jorissen, W. P., explosion regions. XXVI. Shape of explosion regions and their diameters, A., 32. Explosive reactions and analytical geometry, A., 431. Applications of induced oxidation and catalysed autoxidations, B., 584.

and Belinfante, A. H., induced oxidation in which ascorbic acid among others

is the inductor, A., 804. Jorpes, E. See Myrbäck, K.

Jósefowicz, E., solubility of arsenious oxide in aqueous solutions of certain halides of alkali metals and ammonium, A., 421.

Josenhaus, M. See Standard-I. G. Co. Joseph, A., and Houdry Process Corp., treatment of heavy oils, (P.), B., 262.

Joseph, N. C. See Joseph, Ltd., N. C. Joseph, (Miss) O., and Mehta, S. M., viscosity measurements during the coagulation of titanium dioxide sol by mixtures of electrolytes and non-electrolytes, A., 679.

Joseph, T. L., and Holbrook, W. F., silica and alumina in iron ores, B., 195.

Joseph, Ltd., N. C., and Joseph, N. C., silver-plating aluminium, (P.), B., 554.

Josephs, H. W., iron in the blood; comparison of values for hæmoglobin determined by the Newcomer method and calculated from the iron content, A., 93. Joshi, K. C. Sec Sen, H. D.

Joshi, S. P., Khanolkar, A. P., and Wheeler, T. S., amidines. I. Synthesis of symmetrical and unsymmetrical benzdiphenylamidines, and new reactions of amidines, A., 978.

Joshi, S. S., and Kulkarni, S. S., coagulation of colloids. XIV. Coagulation of colloidal arsenious sulphide by mercuric chloride; inadmissibility of viscosity and transparency as general criteria of coagulation, A., 1337.

Joshi, S. S., and Pannikar, K. P. N., variation of viscosity during coagulation of colloid aluminium hydroxide by potassium chloride solutions, A., 157. Coagulation of colloids. XII. "Zonal effect" in the change of refractivity during mutual coagulations, A., 1200.

and Rao, P. V. J., thermo-ageing of colloids. I. Variation of refractivity, A., 935.

and Rao, S. J., "zonal effect" in the electrolytic coagulation of manganese dioxide, A., 426. Coagulation of colloids. XI. Variation of optical refractivity during coagulation of colloidal manganese dioxide and new evidence for the discontinuity of the change. XIII. "Zonal effect" in the opacity changes in the coagulation of colloidal manganese dioxide, A., 795, 1201. Change of refractive index in the coagulation of manganese dioxide sol; step effect, A., 1200. "Zonal effect" during the coagulation of aqueous sodium oleate solutions by barium chloride, B., 558.

and Sarkar, S. P., congulation of dilute oil emulsions by mercuric chloride: evidence for discontinuity of the change in the slow region, A., 679.

Josien, (Mlle.) M. L., silver solutions con-

taining iodine, A., 438.

Josifov, S., determining percentage of sulphuric acid in acid sludge by the sp. gr., B., 819. Experimental burning of acid sludge in the Stalin [oil] refinery, B., 1188.

Joslyn, M. A. See Arighi, A. L., Branch, G. E. K., and Marsh, G. L.

Josserand, A. See Arloing, F.

Jost, L., growth substance and cell division. A., 257.

Jost, W., calculation of the magnitude and pressure dependence of ionic-disorder energy and mobilities in crystals, A., 139. Conductance of salt crystals, A., 786. Ignition and flame propagation Ignition and flame propagation, A., 1208.

Müffling, L. von, and Rohrmann, W., mechanism of oxidation of hydro-

carbons, A., 1209.

and Nehlep, G., theory of electrolytic conduction and diffusion in crystals. III. Calculation of energies of disarray and threshold energies; effect of pressure on electrolytic conduction, A., 666. See also Nehlep, G.

Joszt, A., and Molfnski, S., caramelisation of sucrose, A., 193. Detection of cara-

mel, B., 468.

Jouguet, E., shock waves produced in a gas by a solid explosive, B., 573. Theory of shock waves produced in a gascous atmosphere by a solid explosive, B., 621.

Jouis, E. See Brioux, C. Joukovsky, N. I., and Dekker, W. A. L., determination of isoelectric point of blood-serum, A., 222.

See also De Jong, H. G. B.

Jouravsky, G., chemical composition of the titanomagnetites, A., 1089. Optical properties, densities, and degree of corrosion of the alumino-magnesian titanomagnetites, A., 1228.

Jourdan, F. See Zunz, E.

Journal Box Service Corporation. See Bissell, W. T.

Jousset, B., electromagnetic control of metallurgical products, B., 1211.

Jovanovitsch, D. K. See Schachovitsch,

Joyce, A. D., and Durkee Famous Foods,

Inc., margarine, (P.), B., 1232.

Joyet-Lavergne, P., oxidation-reduction catalysis in the living cell, A., 109. Localisation of vitamin-A in red blood corpuseles during their evolution in vertebrates, A., 764. Cytological study of the action of vitamin-A, A., 1428. Joyner, N. T. See Spielman, L. A.

Jozsa, S. See Gore, H. C. Jucci, C., dissociation between intestinal and glandular permeability to carotenoids in the descendence of some crossings between different species of silkworm,

Juchnovski, G., and Rochlin, S., production of synthetic acids under low pressure, B., 1191.

Jucker, P. See Edlbacher, S.

Juday, C., Birge, E. A., and Meloche, V. W., carbon dioxide and hydrogen ion content of the lake waters of N.E. Wisconsin, A., 699.

Judd, D. B., determining whiteness of paper. II., B., 980.

Judd, E. S., and Dry, T. J., significance of iron and copper in human bile, A.,

Judinson, P. I., Nikogosian, K. S., and Dilaktorski, N. A., synthesis of spinel and its significance in refractory materials industry, B., 370.

Judy, P. R., and Indiana Steel & Wire Co., coated ferrous welding wire or electrode, (P.), B., 156. Coated electrodes for electric welding, (P.),

Pennington, H. R., and Indiana Steel & Wire Co., coated electrodes for electric welding, (P.), B., 241.

Jübermann, O. See Fischer, Werner. Jülicher, K., chlorinated compounds of isopropylamine, (P.), B., 633. Chloro-

derivatives of aromatic isoalkyl hydrocarbons, (P.), B., 874. Jünger, H. O. See Beutler, H.

Juettner, B., Smith, R. C., and Howard, H. C., action of nitric acid on bituminous coal, B., 225. Juferev, V. F., calculation of m.p. of glass

on basis of its chemical composition, B., 59.

and Podkopaev, N. P., utilisation of potassium cyanide production waste

to replace alkalis, B., 59.
and Serdiukov, F. I., peat ash as an ingredient in the manufacture of cements, B., 61.

and Uspenski, V. P., bottle glass, B., 59. Jukes, T. H., and Lepkovsky, S., distribution of the "filtrate factor" (water-soluble vitamin belonging to the vitamin-B complex and preventing a dietary dermatitis in chicks) in certain feeding stuffs, A., 904.

See also Lepkovsky, S.

Julian, P. L., Cole, W., and Wood, T. F., additions to conjugated systems in anthracene series. III. Factors influencing mode and extent of reaction of Grignard reagent with ketones, A.,

and Gist, W. J., action of the Grignard reagent on fuchsones, A., 206.

Pikl, $J_{\cdot \cdot}$, and Wantz, $F_{\cdot \cdot}$, $E_{\cdot \cdot}$, indole series. VI. Synthesis of [1:3-dimethylketo]-tryptophan; 3-alkylation of oxindoles, A., 210.

Julianelle, L. A., and Wieghard, C. W., immunological specificity of staphylococci. I. Occurrence of serological types. II. Chemical nature of the soluble specific substances. III. Interrelationships of cell constituents, A., 761.

Juliano, J. B., and Guerrero, M., cyanophoric plants of the Maquiling region. V., A., 909. Juliusburger, F., and Pirquet, A., thixotropy

and rheopexy of V_2O_5 sols, A., 426. Topley, B., and Weiss, J., isotopic exchange reactions with iodine, A., 40. See also Hughes, $E.\ D.$

Jullien, A., and Richard, J. G., influence of reaction of the external medium on the survival and the p_H of the hamolymph of oysters, A., 1145.

Jullien, P., ketones of CHRPh-CO-R', A., 1109. the formula

See also Carré, P.

Jumper, C. H. See Hornibrook, F. B.

Jung, A. See Schopfer, W. H.

Jung, B. See Lambrecht, H. Jung, F. See Micheel, F.

Jung, G., effects of ageing on plasticity of coking coals, B., 580.

Jung, H., new occurrence of montmorillonite, A., 1483.

Jung, K. P. See Löbering, J.

Jung, W., immersion pyknometer, A., 815.

Jungblut, A. See Arend, J. P.

Jungbluth, H., and Müller, H., cast materials of the iron group for con-struction of chemical utensils, B., 236. Jungbluth-Ficht, R. See Antropoff, A. von.

Jungeblut, C. W. See Zwemer, R. L. Jungermann, K. See Horn, V. Jungers, J. C., radiochemical decomposition

of trideuterammonia, A., 301.

and Taylor, H. S., sodium resonance radiation and the polymerisation of ethylene, A., 404.

Jungewaelter, F. G. See Stritar, J.

Junghanel, R., and Gross, H., compound for preparing matrices for printing purposes, (P.), B., 161.

Junghans, E., treatment of gynaecological bleeding with vitamin-C, A., 882.

Jungkunz, R. See Pritzker, J.

Jungmann, K., and Extraktion A .- G., preparations for protecting and scaling wounds, (P.), B., 954.

Junkelmann, R. See Hanle, W.

Junker, E., behaviour of titanium dioxide on heating and its behaviour towards ferric, sodium, and magnesium oxides, A., 1217.

Junkers & Co. G.m.b.H., heat exchangers, (P.), B., 721.

Junkers-Motorenbau Ges.m.b.H., lightmetal[aluminium]alloy, (P.), B., 376, 554. Junner, N. R., Lake Bosumtwi [volcanic glass], A., 449. Minerals in diamondiferous concentrates, A., 450.

Juraschevski, N. K., hydrogenation of unsaturated compounds, A., 186.

Jurgensen, D. F., jun., and Montillon, G. H., heat-transfer coefficients on in-

clined tubes, B., 127.

Juriev, J. K., catalytic transformations of heterocyclic compounds. I. Transformations of furan into pyrrole and thiophen. II. Conversion of 2-methylinto 2-methylpyrrole and furan III. Reciprocal 2 - methylthiophen. transformations of the simplest fivemembered heterocyclic compounds. V. Transformation of 1-phenyl-, 1-o-tolyl-, a furan and 1-p-tolylpyrrole, A., 481, 858, 1264.

Juriev, J. K., and Borissov, A. E., catalytic transformations of heterocyclic compounds. IV. Catalyticdehydrogenation of tetrahydrothiophen (thiophan), A.,

See also Zelinski, N. D.

Juriev, K. M., and Novopavlovski, V. A., determination of hardness by the scratch method, B., 959.

Juris, K. Sec Smereker, H.

Jurist, A. E. See Christiansen, W. G. Jurling, J. G., and N. V. Fabr. van Chem.

Producten, highly-esterified soluble mixed cellulose esters, (P.), B., 95.

Jurkiewicz, L. See Pieńkowski, S.
Jurovski, A. Z., prediction of sulphur content of coals, B., 624.

Jurs, P. C., and Noller, C. R., saponins and sapogenins. IV. Isolation of amolonin and determination of hydrolysis products, A., 1095.

Jurshenko, A. I. See Shukov, I. I.

Jusa, V. See Roiter, V.

Jusatz, H. J., vitamin deficiency as a cause of disease and the vitamin requirements of man, A., 528. Disinfection of sewage containing tubercle bacilli, B., 573.

Bersin, T., and Köster, II., ascorbic acid and glutathione contents of immun-

ised animals, A., 1160.

Juschkevitsch, N. F., Shavoronkov, N. M., and Zelvenski, J. D., absorption of carbon dioxide by water in experimental and industrial scrubbers, B., 931.

Juschtschenko, J., synthesis of aromatic nitro-compounds with the azide group in

the side-chain, A., 328.

Just, F., steric transformation of sugars, A., 317. Presence of pectin in first wort, in barley, and in malt, B., 901. See also Fink. II.

Just, G. See Schwalbe, C. G.

Just, J., and Szniolis, A., germicidal properties of silver in water, B., 622.

Just, M. See Fingerling, G. Juster, P. See Boivin, A.

Justi, E., effect of an external magnetic field on transition temperatures, A., 1452. Properties of propane, B.,

and Lüder, H., specific heat, entropy, and dissociation of technical gases and

vapours, A., 1058. and Nitka, H., transitions of solid hydrogen sulphide, A., 926.

and Pflaum, W., specific heat of technical gases and vapours at high temperatures, B., 128.

and Scheffers, H., electrical resistance of gold at low temperatures in a transverse magnetic field. II., A., 929. Electrical anisotropy of single tungsten crystals at low temperatures in strong transverse magnetic fields, A., 1452.

Justin-Besancon, L. See Lévy, J.

Justin-Mueller, E., change of sodium nitroprusside into Prussian-blue, A., 37. Action of alkali sulphides on sodium nitro-prusside, A., 40. Simplified copper reagent, A., 1006. Copper peroxide and nascent copper oxide, A., 1474. Behaviour of aromatic oxygen carriers in aniline-black dyeing, B., 188. Different behaviour towards soap of the total and permanent hardness of calcareous water, B., 204. Printing on unchlorinated woollen goods (bisulphite process), B., 831.

Justoni, R., azoformamides. II. Action of hydrochloric and hydrobromic acids on naphthaleneazoformamides, A., 1243.

See also Quilico, A.
Jutassy, E. See Ruzicka, L.
Juterbock, E. E. See Taylor, H. A.

Juza, R., Hülsmann, O., Meisel, K., and Biltz, W., affinity. LXVI. Rhodium sulphides, A., 175.

Juzko, S. L., preparation of sulphur from carboniferous pyrites, B., 318.

K.

Kaatz, L., and Richter, H. E., the Magnoprocess [of water treatment], B., 910. Kabanov, B., hydrogen overvoltage at high

current densities, A., 1467.

Kabat, E. A. Sec Coulter, C. B.

Kabatschnik, M. I., mechanism of reaction of pyridine and its derivatives with alkali amides, A., 615.

See also Katznelson, M. M.

Kabelik, J., action of fibrin on cancerous serum, A., 1014.

Kablukov, I. A., non-aqueous solutions, A., 1065.

Kacl, K., effect of p_H on adsorption of creatinine by erythrocytes, A., 221. Adsorption of creatine and creatinine by erythrocytes, A., 221.

Kadiera, K. See Faltis, F. Kadmer, E. H., experiments with the Allmen S.A.E. oil-testing machine, B.,

Kadner, R. See Gorbach, G. Kadow, K. J., zinc sulphate as fungicide and bactericide, together with its effect on peach growth and on peach

spray injury, B., 422. and Anderson, H. W., rôle of zinc sulphate in peach sprays, B., 293.

See also Ruth, W. A.

Kadowaki, H., carbamide-formaldehyde condensation products, A., 868.

Kadowaki, K. See Kita, G.

Kadykov, B., and Lewin, I., action of camphor on the heart system, A.,

Kägi, H. See Ruzicka, L.

Kaehler, H. See Standard-I. G. Co. Kähr, H., use of heavy fuel oil, B., 775.

Kälin, A. See Thomann, J.

Kaempfe, E., influence of silage prepared with hydrochloric or sulphuric acid on the nitrogen, calcium, and phosphorus metabolism of sheep, with special reference to growing animals in longperiod trials, B., 522.

Kaempfe, F., reaction between blastfurnace slag and water, B., 409.

Käpernick, E. See Röhrig, H.

Kästner, H. See Grube, G.
Kästner, J. G., production of prints on cloth, (P.), B., 591.

Kafuku, K., and Hata, C., fatty oil of Chanoschanos (Forskal), A., 226. Kagabe, K. See Hosoya, S.

Kagan, G. B., purification of oil by local

clays, B., 626.

Kagan, G. V., improvement of the quality of plastic masses on an asphaltic base, B., 847.

Kagan, M.J. See Lubarski, G.D. Kagawa, S. See Shinozaki, Y.

Kagnaer, J. M., and Loginov, N., purifying beet juices by the American and the ordinary method, B., 662.

Kagy, J. F., and Richardson, C. H., ovicidal and scalicidal properties of solutions of dinitro-o-cyclohexylphenol in petroleum oil, B., 1117.

Kahane, E., silica in silicoderms, A., 225. Toxicity of perchlorates, A., 635. Biochemistry of choline and its derivatives. I. Acetylcholine in blood,

A., 875.
and Carrero, J. G., degradation of simple amines during "kjeldahlisation," A., 595.

and Coupechoux, R., bromometric determination of thiocyanates; application to micro-analysis and analysis of thiocyanate complexes, A., 1219.

and Kahane, M., phospho- and silico-

tungstates, A., 620.

and Lévy, J., biochemistry of choline and its derivatives. III. Determination of acetylcholine in biological material. IV. Action of blood on esters of quaternary ammonium compounds, A., 875. Acetylcholine-like substance dissimulated in normal blood, A., 875. Enzymic hydrolysis of acetylcholine by serum, A., 895. Origin of choline in semen, A., 1140.

and Pourtoy, M., application of the nitro-sulpho-perchloric acid method in destruction of organic matter for toxicological determination of arsenic,

A., 260.

and Tomesco, T., action of perchloric acid on iodine and iodine derivatives; determination of iodine in organic substances, A., 177.

See also Fabre, R. Kahane, M. See Kahane, E. Kahl, M. See Niklewski, B. Kahlenburg, O.J. See Forbes, E.B.Kahler, H. See Voegtlin, C.

Kahler, H. L. See Sheen, R. T. Kahlówna, M. See under Kahl, M.

Kahlson, G., and Mertens, O., similarity of action of the adrenal medulla hormone and synthetic adrenaline, A., 1562.

Kahn, B., consequences of Fermi's theory of β-radioactivity, A., 920.

Kahn, H., gold and silver bronzes, B., 198. Kahn, J. L. See Golubtsova, A. V. Kahn, R. L. See Schagrin, H.

Kaho, H., plasmolysis; influence of alkali salts on deplasmolysis of plant cells, A., 648. Chemical composition and structure of the plant plasma, A., 1165.

Kahovec, L., and Kohlrausch, K. W. F., Raman effect. LIX. Raman spectra of organic substances; nitrogen compounds. II. Amino- and hydroxyacetic acids and esters, A., 1319.

Kahr, K. Sec Fischer, Hans. Kailan, A., and Horny, H., influence of heavy water on rate of esterification of benzoic acid in ethyl-alcoholic

hydrogen chloride, A., 432. and Rosenblatt, S., rates of esterification of alcohols in formic and acetic acids and of formic acid in tert.-butyl alcohol,

A., 1073.

Kaimer, F. R. See Gen. Electric Co. Kainarski, I. S., effect of addition of lime

and the granulometric composition on the properties of Dinas, B., 933.

and Kostomarov, M. I., linear changes in silica brick during the firing process, B., 408.

Kainrath, P. See Späth, E. Kaischev, B., theory of crystal growth,

Kaiser, E. R. See Sherman, R. A. Kaiser, H. F. See Canfield, R. H.

Kaiser, N. See Schleicher, A. Kaiser, W. J. See Kirstahler, A.

Kaisser, K., electrolytic treatment of liquids, (P.), B., 418. Kajimoto, S. See Kobayashi, R.

Kajizuka, S., toxicity of methyl alcohol, A., 376. Nutritive value of soyabean powder treated with methyl alcohol, B., 390. Nutritive value of soya-bean oil treated with methyl alcohol, B., 390.

Kakinuma, U., structure of the electron and positron, A., 543. Use of complex Riemmannian geometry in the theory

of the electron, A., 1439.

Kalabuchov, N., internal photo-effect in potassium chloride under illumination with ultra-violet light, A., 779.

and Kurschev, J., spectral distribution of the depolarisation current for Xirradiated KCl crystals, A., 665.

Kalaja, T., new phosphorus fraction in blood and tissues, A., 226. Rôle of vitamins in fat and lipin metabolism, A., 1566.

See also Simola, P. E.

Kalandyk, S., thermionic emission from platinum in bromine and chlorine vapour, A., 1011.

Kalapos, I., action of benzene in leucæmia, A., 633.

Kalb, G., ejected blocks of the Laacher

See district, A., 307. and Hopmann, P. M., ejected blocks of the Laacher See district, A., 1087.

Kalckar, II., inhibitory effect of phloridzin on an enzymic dismutation, A., 111. Inhibitory effect of phloridzin and phloretin on kidney phosphatase, A., 1420. Kalesevitsch, S. V. See Godney, T. N.

Kali-Chemie Akt.-Ges., therapeutically active compound of hexamethylenetetramine, (P.), B., 523. Intensifying foils for X-ray photography, (P.), B., 668. Mixed fertilisers, (P.), B., 1062.

See also Rüsberg, F.

Kali-Forschungs-Anstalt G.m.b.H., alkali orthophosphates, (P.), B., 453. Phos-phatic fertilisers, (P.), B., 517. Production of dicalcium phosphate or of mixed fertilisers containing it, (P.), B., 517. Neutral mixed fertiliser, (P.), B., 517. Conversion of potassium chloride or potassium fertiliser salts into sintered masses, (P.), B., 541. Potassium nitrate, (P.), B., 542. Transport of solid, or solid and liquid, substances mixed with vapours and gases, (P.), B., 964.

Kali-Forschungs-Institut G.m.b.H., moulded salt mixtures, (P.), B., 1037.

Kalichevsky, V. See Standard-I. G. Co. Kalinitscheva, N. A. Sco Schaposchnikov,

Kalinowski, K., thermoregulator of the ordinary type, regulating the heating current without a relay, A., 1083.

Kalite Co., Ltd. See Eaton, L. B. Kallauner, O., and Alejnikov, I., determination of tale in tale minerals, B., 788.

Kalle, H., oceanographical chemical investigations with the Zeiss Pulfrich photometer. I. Apparatus. II. Procedure. III. Determination of phosphate. IV. Influence of other substances on the phosphate determination. V. Determination of total phosphate, plankton phosphate (living matter) and of turbidity, A., 1478.

Kalle & Co Akt.-Ges., light-sensitive diazolayers and prints, (P.), B., 860.

See also Voss, J.

Kallen, II. Seo Houdremont, E. Kallenbach, W. See Krüger, F.

Kálló, 1., lipase content of chyle; absorption of digestive enzymes, A., 750.

Kallós, P., and Kallós-Deffner, L., experimental investigation of salvarsan allergy, A., 1022.

Kallós-Deffner, L. See Kallós, P. Kalman, (Mlle.) C. See Thomas, P.

Kalmanovitsch, F., and Kolotireva, A. F., methods of determining cellulose in bast plants; comparison of Cross-Bevan and Kiesel-Semiganovsky methods,

Kalmuikova, N. V. See Kutschinski, P. K. Kalnin, P. [with Grinstein, W.], supposed "acetoneanil" of Knoevenagel, A., 1122.

Kalnina, V. N. Sce Ivanova, T. I. Kaloroil Burners, Ltd., and Goldberg, A., stationary [hop] drying kilns, (P.), B., 1228.

Kalousek, G. L. See Hornibrook, F. B. Kaloyereas, S., fig preservation, B., 665. Kalpers, determination of mechanical properties of varnish films with the "Rum-

pometer," B., 1006. Kaltenbach, C. E., soap, (P.), B., 649.

Kalthof, F. See Antropoff, A. von. Kaltscheva, D. Sce Zlatarov, A.

Kalunite Co. Sce Fleischer, A. Kalushskaja, V. M. See Korol, S. S.

Kamachi, T., formation of histidine from arginine in incubating hens' eggs, A., 509. Calcium and phosphorus metabolism in chick embryos, A., 512. Chemistry of cephalopod embryos, A., 512.

See also Takamatsu, M., and Tsunoo, S.

Kamal. See Godbole, $N. \dot{N}$. Kamaletdinov, $M. \dot{I}$. See Vozdvischenski, G. S.

Kambara, S., oil-resistance of rubber. II. Molecular polarisation and dipole moment of purified natural rubber. III. Viscosity and molecular polarisation of rubber solution. IV. Mechanism of oil-resistance of duprenc, B., 161, 609, 1220.

Kambeitz, J. See Briegleb, G.

 $\mathbf{Kamecki}, J.$, oxidation of hypophosphorous acid by iodine in aqueous sulphuric acid, A., 1073.

See also Jezewski, M.

Kamei, S., Takimoto, M., and Urakami, Y., drying of solid materials. XV. Wood, B., 148.

Kamen, K. See Cuta, F. Kamen, M. See Harkins, W. D.

Kamenetzki, S. S., oxidation-reduction processes (glutathione) in diseases of the

liver and endocrine glands, A., 1015.

Kamerling, A. W. C. G., and Grotepass, W., anti-pernicious anæmia principle in

gastric juice, A., 1536.

Kamesam, S., experimental treated sleepers laid in the Indian railways between 1911 and 1916, B., 62. Relative wood-preservative efficiency of the ter- and quadri-valent forms of arsenic, B., 321.

Kameyama, N., and Kikuchi, Shin-ichi, photographic development and the

reduction potential, B., 667. Sato, Shikao, Inoue, T., Iida, H., and Torii, Y., electroplating of aluminium on metals [from a fused-salt bath], B., Kamieński, B., influence of size, symmetry, and concentration of ions and dipolos on dielectric potential of the solutiondielectric interface, A., 424. Electrostatics of flotation, B., 797.

and Goslawski, W., simplified dynamical method of measuring dielectric potentials at the solution-air interface, A., 424. Influence of hydrogen ions on dielectric potential of the stereoisomerides quinine and quinidine, A., 424. Influence of hydrogen ions on dielectric potential and surface tension of alkaloids and other organic substances in aqueous solutions, A., 933.

and Zapiór, B., dielectric potential and surface tension of β -cucaine, procaine, and orthocaine solutions at different

 p_{11} , A., 933.

Kamieński, M., andesites of the Trojaga District in the Marmoros Carpathians,

Kaminer, B. B. Sec Nersesov, L. D. Kaminski, F., determination of calcium in

basic slag, B., 406. Kamita, K., Yamamoto, H., Matsuo, M., Yagai, H., and Ota, H., chemical com-

position of glasses suitable for the manufacture of window glass by the automatic drawing process, B., 1152.

Kamiya, S., fission of arginine during proteolytic hydrolysis, A., 520.
Kamm, O., Grote, I. W., and Parke,

Davis & Co., compositions of matter; [preparation from the pituitary gland of substances having antidiuretic activity], (P.), B., 763. See also Marker, R. E.

Kammgarnspinnerei Stöhr & Co. Akt.-Ges., lubricants for textiles, (P.), B., 90.

Thickening agents, (P.), B., 492. and Franz, E., protection of animal fibres, and textiles produced therefrom, from destructive agencies, (P.), B., 1149. Kamner, M. E. See La Mer, V. K.

Kamo, II., physiology of the potato. Diagnosis of "breakdown," B., 515.

Kamorgorodski, S. M. Sce Nikolacy, N. S.

Kamp, J. See Botson, R. Kamp, J. $van\ de$, and Mosettig, E., trans - as - octahydrophencis and anthrene, A., 1102. Phenauthrene series. XI. Propanolamines of the C₁₄H₉·CII(OH)·CII₂·CH₂·NR₂, A., 1390. Kamp, K., barium oxide and zinc exide

as enamel-forming oxides, B., 370.

Kampmeier, R. H., the Costa reaction

(200 cases), A., 100.

Kamptner, H., changes in lubricating oils during use and regeneration of the used oils, B., 436.

Kamsolova, S. P. See Zaprometov, B. G. Kamsolova, Z. See Fuchs, G.

Kamuscher, H. See Moldavski, B. L.

Kamzolkin, V. P., and Livschitz, V. D., preparation of catalyst for ammonia synthesis from Ural magnetite, B., 639.

Kanagy, J. R., soluble decomposition products in aged vegetable-tanned leathers, B., 1169.

See also Harris, M., and Wallace, E. L. Kanamaru, K., lyophilic properties of cellulose and its derivatives. III. Hydration of cellulose, B., 1034.

Kanaskov, D. R., diffusion in the bulb of a mercury rectifier, A., 11.

Kanazawa, S., and Endô, H., comparison of acid-resistivity of various ferrous and non-ferrous acid-resistant alloys, B., 548.

Kanda, E. See Aoyama, Shin-ichi. Kandatsu, M. See Sasaki, Rinjiro. Kandelaky, B. S., structure and properties of thixotropic gels, A., 427.

Kandiah, M. See Field, J. W. Kandiah, S. See Joachim, A. W. R. Kandidova, E. V. See Schalfeev, V. M. Kandler, L., and Knorr, C. A., mechanism

of the electrolytic liberation of hydrogen at palladium and platinum, A.,

Kane, A. P. See Wishnofsky, M. Kane, G. P. See Watson, H. E. Kane, H. F. See Barnard, K. H. Kaneko, G. K. See Noller, C. R.

Kaneko, H., oxidising action of colloids. II. Oxidation with colloidal metal hydroxides and silicates, A., 804.

See also Shibata, Y.

Kaneko, S., activity coefficients of strong electrolytes, A., 564. Molecular conductivity of strong electrolytes in concentrated solutions, A., 1070.

Kaneko, T. See Akabori, S.
Kanel, A. S. See Fabrikant, V. A.
Kanep, E. K., pyrolysis of individual kerosene fractions, B., 484. Pyrolysis of gasoline, B., 484. Pyrolysis of cylinder oil, B., 676.

See also Dobrianski, A. F., and Moor, *Y. G.*

Kanevskaja, S. J., action of alkaline potassium hypobromite solutions on amides of acylated amino-acids, A., 459.

and Schemiakin, M. M., thermal de-composition of the silver salts of carboxylic acids. III. Thermal decomposition of the silver salts of

acetic and benzoic acid, A., 1360.
Schemjakin, M. M., and Bamdass-Schemjakina, E. M., thermal decomposition of the silver salts of carboxylic acids. II. Experimental evidence of the reaction mechanism, A., 469.

Kang, T. T. See Chang, K. C.

Kanga, D. D. See Phalnikar, N. L. Kangro, W., and Flügge, R., heats of solution of ferric chloride in water and in aqueous hydrochloric acid, A., 291.

and Wagner, K. M., streamline scattering in electrolytes, A., 1341.

Kangun, I., and Dondim, E., determination of sulphur in pyrites, B., 101.

Kani, K., viscosity of the system KAlSi₃O₈-NaAlSi₃O₈ and of perthite at high temperatures, A., 150. See also Kôzu, S.

Kania, J. E. A., origin of pyritic copper deposits of the mesothermal type, A., 1484.

Kanibolotzki, P., microscopical examination of agglomerate from Nikopolisk manganese ore, B., 24.

Kaniowska, D. Sec Krause, A. Kanitz, II. R., technique of Widmark blood-alcohol determination for serial investigations, A., 622.

Lohmeyer, A., and Scholz, J., action of tetralin, 5-tetralol, and 5-tetralone on body temperature and metabolism, A., 240.

See also Grossfeld, J. Kanjaev, N. P. See Schilov, E. A. Kann, S. See Fleischmann, W. Kanne, W. R. See Bearden, J. A.

Kanno, G. See Kita, G. Kannuluik, G. W., thermal conductivity of deuterium, A., 788.

Kanowoka, J., adrenaline content of adrenal glands of dogs, A., 642. Does administration of adrenaline alter the adrenaline content of the adrenals in rabbits? A., 642. Adrenaline content of adrenal glands of rabbits in peptone poisoning, A., 643.

and Kanowoka, S., anaphylactic shock and adrenaline content of adrenal

glands, A., 642.

Kanowoka, S. See Kanowoka, J. Kant, E. R. See Freeman, S.

Kantam, (Miss) P. L. See Dey, B. B. Kantardjiev, A., simplified method for preparing cream for churning, B., 567.

Kantzer, M., influence of pressure and foreign gases on optical absorption of chromyl chloride, A., 135. Existence of chlorous anhydride [Cl₂O₃], A., 440. Optical absorption of tellurium dichloride and oxychloride vapours, A., 1177.

Kao, Cheng-Heng. See Kao, Chung-Hsi, Sah, P. P. T., Tung, W. L., and Wang,

S. M.Kao, Chung-Hsi, Tao, T., Kao, Cheng-Heng, and Sah, P. P. T., m-bromobenzhydrazide as reagent for identification of aldehydes and ketones, A., 873.

See also Tung, W. L., and Wang, S. M. Kao, C. K., preparation of sorghum starch, B., 295.

Kao, H. C., lipin metabolism in germinating mung bean, A., 392.

Kao, T. Y., and Chang, C. K., dimesityl diketones and their derivatives. III. aη-Dimesitylheptane-aη-dione βζ-dibromo-aη-dimesitylheptane-aηdione, A., 853.

and Lo, Y. J., dimesityl diketones and their derivatives. II. Isomerism of βε-dibromo-aζ-dimesityl-aζ-hexanedi-

one, A., 205.
Kao, Y. S. See Chi, Y. F.
Kapatos, L. See under Capatos, L.

Kapeliuschnikov, M. A., performance of the "Sovetski Kreking" [cracking] plant, B., 227.

Kapeller-Adler, R., presence of histidine in human urine, A., 881, 1013.

and Boxer, G., arsenical azoproteins and ability of phenylalanine, tryptophan, proline, and hydroxypyroline to couple with diazobenzenearsinic acid, A., 1004.

Kapfenberger, W., electrochemical reduction of europium, A., 942.

Kaplan, A. See Chaikoff, I. L.

Kaplan, B. I., and Smith, Homer W., excretion of inulin, creatinine, xylose, and urea in the normal rabbit, A., 502.

Kaplan, J., new afterglow spectrum in nitrogen, A., 127. Excitation of the auroral green line by metastable nitrogen molecules, A., 261. Effect of oxygen on the auroral afterglow, A., 1040.

and Levanas, L. D., new members of the Lyman-Birge-Hopfield system [of N₂], A., 397.

See also Ellis, J. W., and Feraud, (Miss) K.

Kaplan, N. See Hill, A. E.

Kaplan, P., and Richards Chem. Works, light coloured gum for fabric printing, $(\bar{P}.)$, B., 39. Kaplan, S. I., and Romantschuk, M. A.,

solubility of methyl chloride and ethyl chloride in certain solvents at - 10° to 20°, at pressures less than atmospheric, A., 1456.

See also Kireev, V. A.

Kaplin, P. I., influence of active fillers tensile strength of synthetic rubber, B., 655.

and Shamkin, N. M., influence of synthetic rubber in admixture with natural rubber, B., 655.

Kaplunov, J. N., and Shemotschkin, A. I., accelerated drum-tanning of pigskins, B., 948.

Kapniek, I. See Mueller, J. H. Kapoor, G. P. See Singh, B. N.

Kapp, G., and Treu, M., conductivity of copper oxide, A., 1446.

Kapp, J. F., toilet powders, (P.), B., 1068.

Kappanna, A. N., kinetics of the reaction between a-bromopropionate and silver ions, A., 296.

Kappeler, H., measurement of shape and width of the Compton lines of gaseous neon, oxygen, and nitrogen, and of solid lithium, carbon, and sodium fluoride, A., 1170. Form and breadth of Compton lines, A., 1311.

Kappelmeier, C. P. A., oiticica oil—its chemical composition and the advantages and disadvantages in comparison with tung oil resulting therefrom, B., 67. Determination of phthalic acid as potassium phthalate, B., 263. The new blue pigment—copper phthalocyanine, Monastral Fast Blue BS, or Heliogenblau B Pulver, B., 380.

Kappenberg, W. See Gardner, W. H. Kappler, E., collision broadening of Rayleigh lines in compressed gases,

and Weiler, $J_{\cdot \cdot}$, collision broadening of the undisplaced component of radiation scattered by carbon dioxide at high pressures, A., 270.

Kappler, F, preparation of metal surfaces for painting, B., 461. Rust removal, B., 1099.

Kapterev, P., revitalisation of organisms from the permanently frozen soil, B.,

Kapur, A. N. See Bhatnagar, S. S.

Kapur, P. L. See Bhatnagar, S. S. Kapustin, N. P., rare gases in ammonia

synthesis residues, B., 883. Kapustinski, A. F., equilibrium of the light and heavy isotopes of hydrogen with crystalline cuprous chloride, A., 565. Principles of crystal chemistry, and physicochemical analysis, A., 926.

and Shamovski, L. M., dissociation equilibrium of sulphur trioxide, A., 1463.

and Silberman, A., static method for the determination of the equilibria of metals with carbon dioxide, A., 1464. See also Britzke, E. V.

Kar, H. A., manganese determination on chrome-cobalt alloys, ferro-cobalt stellites, and cobalt high-speed steels,

Kar, K. C., spontaneous and artificial transmutations of atom nuclei, A., 772. Geiger-Nuttall relation, A., 1172.

Kara, I., Rosenkevitsch, L., Sinelnikov, K. D., and Walther, A., absorption of slow neutrons by iron, A., 6. Selective absorption of neutrons, A.,

See also Borissov, M. D.

Karády, I., and Stróbl, F., influence of pregnancy on histamine sensitivity, A., 884.

Karakasch, N. See Stadnikov, G. L.

Karanović, M. See Hägglund, E.

Karantassis, T., and Capatos, L., hexaiodotellurates of aromatic amines and

heterocyclic bases, A., 1079. Karaoglanov, Z., causes of contamination

of precipitates. I. Precipitation processes in which barium compounds are involved. II. Precipitation processes involving lead salts. III. Precipit-ation processes in which various electrolytes take part; classification, A., 1220, 1352, 1479.

and Michov, M., quantitative separation of lead from other cations by the chromate method, A., 43.

Karapetjantz, M. C. See Pertzov, V. N.

Kárasek, J. See Mentl, S. Karasev, K. I. See Petrov, A. D.

Karasik, E. L. See Pigulevski, G. V.

Karczewski, K., potentials at the interface of two liquid phases. I.—III., A., 938,

Karelin, A. I., and Nefedieva, O. V., composition and quality of Mid-Asia coals, B., 4.

Karfunkel, V. See Miplas, L.

Kargin, V. A., and Klimovitzkaja, H. B., exchange adsorption on colloidal vanadium pentoxide, A., 154.

and Papkov, S., development of heat in action of solvents on nitrocellulose, B., 1056.

See also Baibaiev, A. I., Berestneva, Z.J., and Neuman, R.S.

Karimullah. See Todd, A. R. Karitscheva, V. N. See Rutovski, B. N. Karjagina, M. K., biochemistry of the proteins of brain. V. Alanine content of the proteins in vertebrates, A., 1011. Karkov, A. See Bøggild, J.

Karkuzaki, L. I. See Pischtschimuka, P. S.

Karlberg, O., carbohydrate groups of some glucoproteins, A., 879.

Karlik, B., and Pettersson, H., spectrum of polonium, A., 128.

and Rona, E., range of a-rays from polonium and its dependence on intensity of the radiation, age of the preparation, and nature of the substrate, A., 131.

Karnauch, E. See Schischkin, V.

Karneeva, V. A. See Voroscheov, N. N. Karnicki, F., and Dorner, W., lactic acid bacteria in Swiss cheese cultures, B., 392.

Karpatschov, S., and Poltoratska, O. cathode polarisation as a function of the current density in fused salts, A., 1207.

and Stromberg, A. G., viscosity coefficients in the system fused KCl-MgCl2, A., 22. Relation between electrical conductivity and the coefficient of internal friction in melted salts, A., 666. Capillary-electric phenomena in molten salts, A., 800.

Stromberg, A. G., and Podtschainova, V. N., viscosity and conductivity in the system: fused KCl-LiCl, A.,

Karpeles, S. L., determination of the relative printing strengths of inks by calculation, B., 1217.

Portman, A. B., and Thomasset, P., colours for the printing ink maker, B.,

Karpen & Brothers, S. See Dodge, B. F. Karpova, I. F. See Shukov, I. I.

Karpuchin, P. P., synthesis of alizarin from 2-chloroanthraquinone, prepared from chlorobenzene and phthalic anhydride, B., 445.

and Chusid, I. E., preparation β-naphthol-3-carboxylic acid, A., 203.

and Slominski, L. I., separation of acenaphthene from coal tar, and its purification, B., 83.

Karr, W. G. See Cajori, F. A. Karrer, P., vitamin-A, -C, and - B_2 ; constitution and constitution specificity of action, A., 117. Study of vitamins, A., 117. Some naturally occurring pigments of biochemical interest, A., 1307.

Becker, B., Benz, F., Frei, P., Salomon, H., and Schöpp, K., synthesis of lactofiavins, A., 85.

and Bendas, H., acetoacetie acid O-phosphoric ester, A., 321.

and Benz, F., reduction products of nicotinamide methiodide. II., A., 1519.

and Fritzsche, II., [relation between] constitution and fluorescence of flavins, A., 867.

and Hübner, II., capsanthol, a reduction product of capsanthin, A., 857. Nature of ostacin-ovo-ester from lobsters, A., 872.

Köbner, T., and Zehender, F., mechanism of the lumichrome degradation of flavins, A., 616.

and Litwan, F., constitution of benzoylformoin, A., 991.

and Meerwein, H. F., improved synthesis of lactoflavin and 6:7-dimethyl-9-1'arabitylisoalloxazine, A., 616.

and Naef, R., aminoflavin, $9-\beta'$ -aminoethylisoalloxazine, A., 1525.

and Oswald, A., carotenoids from the anthers of Lilium tigrinum: antheraxanthin, A., 259.

and Quibell, T. II., synthesis of flavins, A., 1525.

Rübel, F., and Strong, F. M., occurrence of carotenoids in plants, A., 533.

Salomon, H., Kunz, R., and Seebach, A., reduction products of aromatic amines and sugars [condensation products],

Schwarzenbach, G., Benz, F., and Solmssen, U., reduction products of nicotinamide methiodide, A., 1121.

and Solmssen, U., carotenoids of purple bacteria. I. II. Rhodoviolascene. III., A., 248, 340, 1561. Hydrogenation value of violaxanthin, A., 1515.

and Strong, F. M., flavin syntheses. VIII. Synthesis of 6-methyl-9-1-dribitylisoalloxazine and other synthetic investigations in the flavin series, A., 85. Preparation of homogeneous anthocyanins by chromatographic analysis, A., 341. Syntheses in the flavin series, A., 867.

and Warburg, O., nicotinamide methiodide, A., 862.

and Weber, H. M., separation of natural mixtures of anthocyanins by chromatographic adsorption analysis. Althein," A., 1516.

See also Euler, H. von. Karrick, L. C., destructive distillation of carbonaceous material, (P.), B., 776.

Karsanovski, I. See Bernal, J. D. Karschulin, M., periodic potential oscillations of iron in chromic-sulphuric acid solutions. III., A., 1467.

Karshan, M., Weiner, R., and Stofsky, N.. aqueous extracts of enamel and dentine in relation to dental caries, A., 626.

Karshavin, V. A., production and utilisation of hydrogen from gases containing methane, B., 725. Natural gas; conversion into carbon monoxide and hydrogen, B., 1075.

and Krischtul, E. B., nitric oxide in coal gas, and its removal by liquid absorb-

ents, B., 965.

and Leibusch, A. G., coal gas as a basic product for production of hydrogen, B., 865.

Leibusch, A. G., Olenov, V. S., Bergo, G. J., and Ovtschinnikov, B. N., preparation of hydrogen by catalytic conversion of coal gas, B., 640.

Karshavina, N. A., catalytic methanisation of carbon monoxide in industrial

gases, B., 915. Karshev, V. I., and Bobrova, A. F., oils used in absorption of natural gasoline, B., 1188.

Severjanova, M. G., and Sivova, A. N., catalytic dehydrogenation of cyclohexane, A., 712.

Karsten, A., simplified apparatus for fluorescence analysis, A., 305. Application of developments in methods of pH measurement to dairy practice, B., 665. Modern drying processes in the mineral pigment industry, B., 751. Manufacture of ferrous alloys from ores in the electric furnace, B., 839.

Karsten, P., titrimetric colorimetry, A., 692. Kartzev, S. M., reduction of nitro- to aminosalicylic acid by means of sodium sul-

phide, B., 440.

Karvé, D., and Dolé, K. K., kinetics of reactions in heterogeneous systems. I. Reaction between carbon disulphide and alkali. II. Reaction between benzoyl chloride and water, A., 297.

Karwat, E., influence of dispersion on reading of the Haber-Löwe gas interferometer, A., 445. Technical applications, present position, and prospects of the use of oxygen, B., 592.

Kasahara, M., diagnosis of lead poisoning

in children, A., 377.
and Kasahara, T., direct detection of lead with diphenylthiocarbazone, A., 303.

and Nosu, S. I., so-called normal lead of human milk, A., 501.

Kasahara, T. Sec Kasahara, M.

Kasai, B. See Ozaki, J. Kasai, M. See Fukuda, M.

Kasakov, I. N., action of low-molecular

autoclave hydrolysates, A., 633. Kasanski, B. A., dehydration of dimethylcyclobutylcarbinol, A., 820. Homo-

logues of cyclohexane present in the octanaphthene fraction of Surachani benzine, B., 916. Homologues of cyclohexane present in the nonanaphthene fraction of Baku petroleum, B., 916.

and Plate, A. F., aromatisation of cyclopentane homologues and paraffins in presence of platinised charcoal, A., 1238.

Plate, A. F., and Gnatenko, K. $M_{\cdot,\cdot}$ synthesis of monosubstituted cyclopentane homologues with branched side chains, A., 831.

Kasanzev, V. P., X-ray investigation of method of preparing spongy iron by reducing hamatite with gases, A., 40.

Kasarnovski, J. S., and Pisarev, K., removal of hydrogen sulphide from gas by oxidation by active charcoal, В., 177.

See also Kobosev, N. I., and Kritschevski, I. R.

Kaschevnik, L. D., Eidman, S. A., and Friedland, I. B., nitrogen balance and oxidation process in experimental scurvy. II. Effect of reduced iron, A., 101.

and Friedland, I. B., protein metabolism and oxidation processes in experimental scurvy. III. Urea and creatinine excretions in experimental scurvy and the effect of iron, A., 369.

Kaschtanov, L. I., Bulotschnikov, M. V., and Zlotnikova, O. L., nitrogenous constituents of peat generator-gas tar, extractable with sulphuric acid, B.,

and Guljanskaja, G. A., existence of the complex MnSO₄,xSO₂, A., 936.

and Rishov, V. P., formation of intermediate compounds in oxidation of sulphur dioxide by oxygen in presence of catalysts and anti-catalysts, A., 941. Effect of catalysts and anticatalysts on kinetics and mechanism of oxidation of sulphur dioxide by ozone, A., 1075.

See also Kobosev, N. I., and Vassiliev, S. S.

Kaschtanov, P. See Burstein, R.

Kasé, T., metallic cementation. Cementation of metal by means of antimony dust. III. Cementation by aluminium powder, B., 197, 327.

Kaselitz, O. F., recovery of compounds of sodium, magnesium, and bromine in the

potash industry, B., 144.

Kashima, S., synthetic methyl alcohol as a fuel substitute, B., 819.

Kashyap, O. P. See Rojahn, C. A. Kasjanov, V. See Vasátko, J. Kašpar, J. V., origin of guano minerals in the Domican Grotto, Slovakia, A., 448.

Kasper, K. A. See Closmann, E. A. See Janicki, J.,

Kasprzyk, K. See Przylęcki, S. J. von.

Kassatkina, V. N. See Musserski, N. N. Kassatotschkin, V., deflexion of slow electrons by sublimed tungsten, A., 144.

and Kotov, V., structure of potassium tetroxide, A., 1054.

See also Hellmann, H.

Kassel, L. S., relative values of the four butane-butene-hydrogen equilibrium constants, A., 428. Vapour pressures of the xylenes and mesitylene, A., 673. Limiting high-temperature rotational partition function of non-rigid molecules. I. General theory. II. CH₄, C₂H₆, C₃H₈, CHMe₃, CMe₄, and n-butane. III. Benzene and its eleven methyl derivatives. IV. Ethylene, propylene, \(\Delta^a\)-butene, cis- and trans- Δ^{β} -butene, isobutene, trimethylethylene, tetramethylethylene, and butadiene. V. Equilibrium constants for reactions of paraffins, olefines, and hydrogen. VI. The methanol equilibrium, A., 673, 1069, 1338.

and Montgomery, C. W., vibrations and internal rotation of a chain of four

atoms, A., 14.

Kassin, N., ore-bearing zones of the metal deposits of Karakstan, A., 699. Kassler, R. See Simek, B. G.

Kassner, E. E. W., apparatus for investigating properties [characteristic frequency range] of dipole substances, (P.), B., 748. Kassner, E. W. See Coward, K. H.

Kast, Il'., dependence of dielectric constants of anisotropic liquids on field strength and frequency, A., 139.

Kaster, C. See Becker, Gottfried. Kastler, A. See Daure, P.

Kastorskaja, T. L. See Vassiliev, S. S. Katadyn Akt.-Ges., treatment of tobacco,

(P.), B., 124.

Katagiri, H., and Kitahara, K., optical properties of fermentation lactic acids. I. Bacteria producing inactive lactic acid. II. Behaviour of lactic acid bacteria on addition of inactive and active lactic acids to fermentation liquids. III. Action of inactive lactic acid-producing organisms on optically active lactic acids added to fermentation liquids. IV. New enzyme racemiase which reveals racemisation of lactic acids, A., 247, 640, 899, 1419.

Katakova, K. S. See Babakina, V. G.Katalinić, M., coalescence in stages between two drops of a liquid, A., 146. Longitudinal scattering of light according to Plotnikov, A., 547.

See also Vrkljan, V. S.

Kataoka, T., anthocyanin pigments of Pharbitis nil, A., 1307.

Kath, A., retorts for low-temperature distillation of carbonaceous material, (P.), B., 819.

Kathrein, G., theory [of concrete], B., 1208.

Kato, B., and Matsuda, I., antisepties for saké, B., 617.

Kato, C. See Sakai, T.

Kato, H., utilisation of bagasse. VI. Physical properties of Celotex (4); ignition point, B., 490.

Kato, J. See Okano, K.

Kato, K., correlation of organic and mineral matter contents of mulberry leaves, A., 1434.

Kato, O. See Kuwata, T. Kato, S. See Nakahara, W.

Kato, Takeo, types of lead-zine ore deposits in Japan, A., 185. Analysis of alkali metals. I. Separation of alkali metals. II. Determination of alkali metals, A., 578.

Kato, Tsunetaro, and Sameshima, H., thermal decomposition of rubber under high pressure. I. Decomposition of waste rubber in presence of petroleum heavy oil, B., 161.

Kato, Yasujiro. See Tashiro, T.

Kato, Yogoro, electrolytic manufacture of metallic magnesium, (P.), B., 1050.

and Fujino, S., preparation of cellulose acetate. I. Preparation of acetyl chloride, A., 704.

Takei, T., and Mitsubishi Denki Kabushiki-Kaisha, permanent magnet, (P.),

Kato, Yoshikayu. See Soneda, Y.

Katrak, (Miss) B. N., compounds related to phenaectin, A., 1246.

Katsnnuma, R., relation between iron and oxidase reaction; bacillus occurring in mussels at the bottom of a mussel-hill

of the later stone age, A., 1154. Katsura, S., Hatakeyama, T., and Tajima, K., volumetric micro-determination of phosphatides, free cholesterol, cholesteryl ester, neutral fat, and total lipins of blood, plasma, and corpuseles, A., 622.

Katsurai, T., Tyndall light of milk, A., 562. and Kawashimo, K.. problems of the theory of diffusion, A., 680.

Katti, M. C. T. See Sunawala, S. D.
Katunski, V. M., intensity of geotropic reaction as a quantitative index of content of growth-promoting substance [in plants], A., 1305. Growth-promoting substance and formative action of light on vegetation in plants, A., 1305. Katz, Jacob. See Parks, W. G.

Katz, Joseph, and Lipsitz, A., effect of synthetic surface active materials on bacterial growth. I. Effect of sodium di-sec.-butylnaphthalenesulphonate on growth of Mycobacterium smegmatis, A., 383.

Katz, J. R., X-ray spectrography of polymerides, particularly those having rubber-like extensibility, A., 274. Staling of bread, B., 40. Influence of doughmaking and fermentation on structure of bread crumb, B., 40. Are all bacteria of bread killed during baking? B., 41.

Katz, K., analyses of Polish crude oils, B., 676.

Katz, S. See Campbell, A. N., and Steacie, E. W. R.

Katzen, I. S., and Virvo, A. V., mechanism of electro-osmotic purification of water. I. Influence of hydrogen- and hydroxylion concentration in the electrode

chambers, B., 78.
Katzman, S. V., pyrolysis of paraffin, B., 676.

See also Dobrianski, A. F.

Katznelson, I. L. See Plotnikov, V. A. Katznelson, M. M., and Kabatschnik, M. I., amidation with sodium and potassium amides on a- and a'-aminoanabasine. IV. Nitration of a'-aminoanabasine, A., 88.

Katzoff, S., and Roseman, R., pyridinium vanadate, A., 1350.

Kauffman-Cosla, O., and Brüll, R., pharmacodynamic action of zinc in general metabolism, A., 382. Pharmaco-dynamic action of iron in general metabolism, A., 1558.

Kauffmann, F., and Burón, F. A., cultural studies in the Salmonella group, with particular reference to organic acids. A., 898.

Kaufman, G. See Texas Co. Kaufman, J. S., treatment, of exhaust gases, (P.), B., 820.

Kaufman, L. E., precipitation of thorium by sebacic acid, A., 444. Application of gravimetric methods of determination of thorium to its isolation and determination in small amounts, A., 953.

Kaufman, R. E. See Gordon, W. G. Kaufmann, A., fibres for gas-mask filters; their mode of action and possibilities

of improvement, B., 1069. Kaufmann, H. See Standard-I. G. Co.

Kaufmann, Hans, transfers for applying designs to wood and other surfaces, (P.), B., 1096.

Kaufmann, H. P., significance of chemical research for manufacture of soaps and [modern] detergents, B., 1215.

and Baltes, J., diene synthesis with fats. I. Diene value of fats, A., 966.

Kaufmann, L. See Endres, G. Kauko, Y., peculiar behaviour of aqueous carbonic acid, A., 29. First dissociation constant of carbonic acid equilibrium, A., 159.

Kauko, Y., mathematical and graphical treatment of equilibrium base-carbon dioxide-water in dilute solutions, A., 159. Velocity of decomposition of calcium carbonate solutions, A., 164. Determination of free carbonic acid in waters containing humus, A., 303.

and Carlberg, J., first dissociation constant of carbonic acid at various temperatures, A., 681. Determination of carbon dioxide in gas mixtures by means of $p_{\rm H}$ measurements, B., 541.

and Haulio, P., action of carbonic acid on ferrous sulphide, A., 174.

and Kommusar, II., desaturation experiments on aqueous carbonic acid, A., 152. and Mantere, V., second dissociation constant of carbonic acid, A., 29, 797. Diffusion potential, A., 566.

Mantere, V., and Yli-Uotila, T., determination of total carbonic acid of carbonate solutions, A., 1220.

and Yli-Uotila, T., determination of carbon dioxide in air, A., 1220. Colorimetric determination of atmospheric carbon dioxide, B., 493.

Kaulin, E., Neuman, M. B., and Serbinov, A., testing inflammability of Diesel fuels in bombs, B., 728.

Kaumagraph Co. See Laurence, W. S. Kaunert, P., and Florian, E., determination of tar in bitumen-tar mixtures, B., 532. Kaunitz, H., ashing of organic matter with nitric acid, A., 872.

Kauter, A., ash content of hay in relation to plant species and soil reaction, B., 563.

Kautsky, II., energy transformations at

interfaces, A., 793.
and Flesch, W., chlorophyll fluorescence
and carbonic acid assimilation. V. Relation between leaf fluorescence and oxygen assimilation, A., 767.

and Hormuth, R., fluorescence curves of

living leaves, A., 1570. and Marx, A., rate of increase of

fluorescence of living leaves, A., 907. Kautter, C. T. See Bataafsche Petroleum Maats.

Kautz, K. M., enamel adherence, B., 543. Kavanagh, F., analysis of alkyd resins,

Kawabata, T., recovering caustic soda from press liquor [in viscose manufacture], В., 364.

Kawada, K., non-ferrous alloys in railway engineering, B., 1210. Kawaguchi, M. Sec Iwatsuru, R.

Kawai, S., and Sugiyama, N., synthesis of β_{Y} -dihydropropylguanidine, A., 829.

Kawaji, M. See Hotta, K.

Kawakami, I., effect of adrenal preparations and vitamin-C on the sex cycle in castrated mice, A., 762.

Kawakita, K., chemisorption of carbon dioxide by reduced iron; influence of the chemisorption on van der Waals adsorption of carbon dioxide at 0°, A., 791.

Kawamo, K. See Nakagawa, I. Kawamoto, N., fishes as test subjects for biological action of various substances and for determination of the nature of

urease, A., 1415. Kawana, T. See Hashimoto, A. Kawashima, C. See Kondō, Seiji.

 Kawashima, R., soil formation in Kyushu,
 B., 421. Soil formation in North
 Kyushu, B., 466. Exchangeable cation content as related to climatic soil types in Manchuria, B., 1114.

Kawashimo, K. See Katsurai, T.

Kawata, S., effects of chemical combination on the L absorption limits of tantalum, tungsten, gold, and lead, A., 399. Kawczyk, M. See Meyer, Julius.

Kawe, A., determination of manurial requirement of soils for potassium and phosphate by means of the soil solution, B., 610.

Kay, A. See Small & Parkes. Kay, F. F., soil survey of the eastern portion of the Vale of the White Horse, B., 245.

Kay, II., simplified methods of combustion calculations, B., 772.

Kay, H. D., and Graham, W. R., jun., phosphatase test for pasteurised milk, B., 120.

See also Folley, S. J., and Graham, $W.\ R.,\ jun.$

Kay, J. G., corrosion of Portland cement in water, B., 372.

Kay, W. See Necheles, II.Kay, W. B., density of hydrocarbon gases and vapours at high temperature and pressure, A., 1330.

Kay, W. M., [nickel-chromium] electricresistance alloys, (P.), B., 504.

Kay & Ess Chemical Corporation. See

Kittredge, H. G., and Turner, A. J. Kaye, (Miss) M., reticular tissue of the

skin, B., 754. Kaylor, M. J. Sec Nutting, P. G.

Kayo, S. See Hosoya, S. Kayser, C. See Dontcheff, L.

Kayser, F., asymmetric reaction; preparation of an alcohol or of its diastercoisomeride, exclusively, by reactions asymmetric or not, A., 1375. See also Weill, P.

Kayser, II. See Baukloh, W.

Kaysing, P. H., means for combatting pests, (P.), B., 387.

Kazakova, L. See Moschkin, A. Kazakova, N. V. See Roshevski, L. S. Kazanjian, G. L. See Harned, H. S.

Kazarnovski, S. N., and Efremova, T. N., nickel contact catalyst for removal of carbon monoxide from hydrogen-nitrogen mixture, B., 640.

Kazuno, T. See Shimizu, T. Keane, J. See Spillane, P. A. Kearby, K., vapour pressure of silicon tetrachloride, A., 418. Kearns, H. G. H., Marsh, R. W., and

Martin, Hubert, combined [insecticidal] washes. II. Hydrocarbon oils in combination with lime-sulphur. III. Derris extracts in combination with lime-sulphur, B., 899.

and Martin, Hubert, [insect] egg-killing washes; ovicidal properties of lauryl

rhodanate, B., 899.

and Umpleby, E., control of woolly aphid (Eriosoma lanigerum, Hausm.) on nursery trees, B., 899.

Kearns, J. E. See McCullagh, E. P. Keaton, C. M. Sec Vandecaveye, S. C.

Keats, G. II. See Mills, W. II. Kedrinski, V. V., and Skornjakova, V. F., analysing commercial glycol; determination of ethylene glycol and propylene glycol by oxidation with potassium dichromate, B., 536.

Keefer, C. E., and Kratz, H., jun., vacuum filtration of [sewage] sludge from secondary settling tanks, B., 221. [Sewage] sludge clutriation tests, B., 253. Keeley, R. J., deoxidation and degasifie-

ation of nickel-silver alloys, B., 413.

Keeley, T. C., and Mendelssohn, K., magnetic properties of superconductors, A., 787.

Keen, R. C., crystal structure of potassium persulphate, K₂S₂O₈, A., 16.

Keen, W. H., chromium-plated articles [steel cutlery], (P.), B., 797.

Keenan, E. T., and Florida Fruit Canners, Inc., fertiliser, (P.), B., 661.

Keene, W. L. See Turner, H. G. Keep, F. E., waters, magmatic and

meteoric, A., 699. Keese, W., replacement of tin, especially by antimony, in red brass Rg 5 and Rg 9,

B., 793. Keesom, (Miss) A. P. See Keesom, W. H. Keesom, W. H., superconductivity and other low-temperature phenomena, A., 147.

and Bijl, A., comparison of platinum resistance thermometers with the helium thermometer from -190° to -258°, A., 954.

and Dammers, B. G., comparison of some platinum thermometers with the helium thermometer between 0° and -183°, A., 180. Construction of platinum thermometers and determination of their basic points, A., 180.

and Haantjes, J., vapour pressures of neon of different isotopie compositions, A., 21. Separation by rectification of neon into its isotopie components, A., 38.

and Keesom, (Miss) A. P., specific heat of solid helium and melting heat of helium, A., 417. Heat conductivity of liquid helium, A., 788.

and Laer, P. II. van, relaxation phenomena in transition from the superconductive to the non-superconductive state, A., 556. Latent heat of tin in passing from the superconductive to the non-superconductive state, A., 787.

and Schmidt, G., heat conduction by rarefied gases. I. Thermal accommodation coefficient of helium, hydrogen, neon, and nitrogen on glass at 0°, A., 1059.

and Taconis, K. W., structure of solid γ-oxygen, A., 553. Crystal structure of chlorine, A., 669.

See also Clark, C. W., Kok, J. A., Lisman, J. H. C., and Wolfke, M.

Keet, T. W., jaw crushers, (P.), B., 80. Keeth, J., and Universal Insulation Co., vermiculito bonded material, (P.), B., 741.

Keetman, E. See Krause, O.
Keevil, N. B., and Thorvaldson, T.,
hydration of dicalcium silicate and

triealcium silicate, A., 574. Sco also Bent, H. E.

Kefeli, M. M., and Berliner, E. R., determination of moisture in coals and cokes, B., 49. Simultaneous determination of ash and sulphur in coals, B., 50.

Keffler, L. J. P., formation of nitric acid in combustion of organic substances under a high pressure of oxygen, A., 297. Preparation in a high state of purity of long-chain compounds. II. Brassidic acid type, A., 1488.

and McLean, J. II., preparation in a high state of purity of long-chain compounds. I. Oleic acid., A., 53.

and Maiden, A. M., preparation of brassidic acid from colza oil, A., 54. Solubility relationships in mixtures of brassidic acid with crucic acid, methyl brassidate, and ethyl brassidate, A., 1464.

Kegel, K., stability of [coal] briquettes towards weather and water, B., 817.

Keggin, J. F., and Miles, F. D., structures and formulæ of the Prussian-blues and related compounds, A., 670.

Kehl, B., and Siebel, E., wear of metals in sliding friction, B., 888.

Kehoe, R. A., determination of lead in excreta and tissues, A., 99.

Thamann, F., and Cholak, J., normal absorption and exerction of lead, A., 635.

Kehr, R. W. See Streeter, H. W. Keighley, G. L. Sco Borsook, II.

Keil, A. See Seith, IV.

Keil, H. H., and Nelson, V. E., aluminium in nutrition, A., 371.

Keil, II. L., rôle of inorganic substances and amino acids in the regeneration of hæmoglobin in the rat, A., 621. Keil, W., novocaine oxide, A., 70.

and Pöhls, F. H., analgesic and respiratory action of the morphine group, A:, 892.

See also Eichholtz, F.

Keilhack, $H_{\cdot,\cdot}$ behaviour of scrum-proteins under various metabolic conditions, A., Form of proteins in blood-plasma and bone-marrow in the normal organism, A., 500.

Keilich, H., quantum theory and photo-

graphy, A., 943.

Keilin, D., mechanism of intracellular

respiration, A., 508.

and Hartree, E. F., uricase, amino-acid oxidase, and xanthine oxidase, A., 241. Coupled oxidation of alcohol, A., 242.

See also Dixon, M. Keillor, F. B. See Keillor, G.

Keillor, G., Keillor, F. B., and Keillor, R. D., treatment of ferric oxide used for removal of sulphur impurities from gases, (P.), B., 319.

Keillor, R. D. Seo Keillor, G.

Keim, H., pouring from vessels, A., 1225.

Keimatsu, I. See Kondo, II.
Keimatsu, S., and Ishiguro, T., constituents of hinokiol. II. Comparison of hinokinin and cubebinolide. III. Constitution of hinokiol. IV. Structure of hinokiol, A., 1247.

and Satoda, I., synthesis of organosolenic compounds. VII. Selenium diphenol, A., 90.

Yokota, K., and Satoda, I., organoselenium compounds. VI., A., 1279.

Keiser, B. See De Groote, M. Keitt, G. W., Pinckard, J. A., Shaw, L., and Riker, A. J., toxicity of certain chemical agents to Erwinia amylovora, B., 1224.

Keith, P. C., jun., and Ward, J. T., thermal conversion of low-mol. wt. hydrocarbons into motor fuels, B., 915.

See also Wilson, R. E.

Keith, R. W., fuel calorimeters, (P.), B., 820. Keith, W.J. See Young, G.H.

Keizer, W. C., organic arsenic compounds, B., 1017.

Kekwick, R. A., and Cannan, R. K., hydrogen-ion dissociation curve of crystalline albumin of the hen's egg, A., 360. Effect of formaldehyde on hydrogen-ion dissociation curve of ovalbumin, A., 360.

Kelbovskaja, M. K. See Krestinski, V. N.

Kelco Co. See Wig, R.J.Keler, F., jun. See Aluminum Co. of America.

Kelkar, G. R. See Limaye, D. B.

Keil, A. T. B., water-resisting mouldable or coating compositions, (P.), B., 1111.

Kell, K., and Schmitz, W. H., production of asphalt bitumen free from paraffin, (P.), B., 485.

Keller, A., therapeutic effects of mineral waters, A., 1549.

See also Erk, S.

Keller, A. R., examination and control device for wort-handling equipment, (P.), B., 566.

Keller, C. H., and Minerals Separation North Amer. Corp., phosphoric acid [from phosphate rock], (P.), B., 273. Concentration of ores by flotation, (P.), B., 891.

Keller, F., manurial trials with nitrophosphat-Lonza, B., 210.

See also Truninger, E.

Keller, G. H., cylinder wear measured by iron content of oil determined by the eolorimeter, B., 178.

Keller, H. See Wieland, H. Keller, R., colloidal potassium complexes, A., 1338.

Keller, T. P. See Doherty Res. Co. Keller, W. D., clay colloids as cause of bedding in sedimentary rocks, A.,

See also Tarr, W. A. Kellermann, H. See Fischer, Hans.

Kellermann, J. II., sulphur metabolism. I. Absorption and exerction of flowers of sulphur, A., 237. Cystine deficiency of lucerno proteins; effect of heat and incubation on their growth-promoting value, A., 630. Kellett, S. See Bowen, H. H.

Kelley, B., pressure filter, (P.), B., 223.

Kelley, H. W., and Union Paste Co., glue, (P.), B., 1058.

Kelley, K. K., data on theoretical metal-lurgy. III. Free energies of vaporisation and vapour pressures of inorganic

substances, B., 24.
and Anderson, C. T., data on theoretical metallurgy. IV. Metal carbonates correlations and applications of thermodynamic properties, B., 24.

Kelley, M. T. See Pagel, H. A. Kelley, V. C., occurrence of claudetite in Imperial County, California, A., 699.

and Soske, J. L., origin of the Salton volcanic domes, Salton Sea, California, A., 1358.

Kelley, W. See Belden, D. S. Kelley, W. P., and Jenny, H., relation of crystal structure to base exchange and its bearing on base exchange in soils, B., 805.

Jenny, H., and Brown, S. M., hydration of minerals and soil colloids in relation to crystal structure, B., 610.

Kellie, A. E., and Zilva, S. S., alleged presence of dehydroascorbic acid in blood, A., 647. Indophenol-reducing substance in Jensen rat sarcoma, A., 1142.

Kelling, A. H., and Internat. Patents Development Co., [metal-drawing] lubric-

ant, (P.), B., 534.

Kellitt, W., apparatus for treatment of rubber latex, (P.), B., 945. Treatment of rubber latex, (P.), B., 945.

Kellog, H. B., determination of carbon dioxide in carbonates, B., 406.

Kellogg, C. E., development and significance of the great soil groups of the United States, B., 562.

Kellogg, F., and Mettier, S. R., effect of alkaline therapy for peptic ulcer on utilisation of dietary iron in regeneration of hæmoglobin, A., 1289.

Kellogg, J. H., preparations of natural or artificial milk containing Bacillus acido-

philus, (P.), B., 297.

Kellogg, J. M. B., Rabi, I. I., and Zacharias, J. R., sign of the magnetic moment of the proton and of the deuteron, A., 656. Gyromagnetic properties of the hydrogens, A., 1316.

Kellogg Co., Wilder, H. K., and Lindow, C. W., preparation of [cereal] food pro-

ducts, (P.), B., 474. Kellogg Co., M. W. See Blumberg, H. S. Kellström, G., viscosity of air and the electronic charge, A., 1060.

Kelly, C. D. See Pederson, C. S.

Kelly, E. J., printing ink, (P.), B., 608. Kelly, J. D. See Near, H. B. Kelly, J. W., and Dearstyne, R. S., haematology of the fowl; normal chick and normal adult blood; hæmatology of chicks with pullorum infection: adult carriers of pullorum disease, A., 1010.

Kelly, T. D., electric furnaces for melting and refining metals and other materials,

(P.), B., 417.

Kelly, T. L., and Morisani, E. A., p-phenylphenacyl esters of organic acids, A., 1248.

Kelly, V. See Bogin, C.
Kelly, W. See Haworth, R. D.
Kelly, W. J., carbon-structure control in

iron, (P.), B., 415.
Kelly, W. P., and Shaw, C. F., meaning of the term solonetz, B., 383.

Kelp-Ol Laboratories, Inc. See Miller, $G.\ C.$

Kelsall, G. A. Sec Bell Telephone Labs. Kelsen Special Sheet Holding Société Anonyme, removal of galvanic or electrolytic deposits of metal from a cathode,

(P.), B., 332. Kelson, F. II., modern overprint varnishes, B., 703.

Keltch, A. K. See Shonle, H. A.

Kelvinator Corporation, cooling and dehumidifying gases such as air, (P.), B., 1024. Conditioning of gases by cooling, (P.), B., 1024.

Kemet Laboratories Co., Inc. See Cooper, H. S., and McQuade, J. D.

Kemmer, F. R., and Amer. Magnesium Metals Corp., condensing magnesium vapour, (P.), B., 1102. Apparatus for condensing magnesium vapour, (P.), B., 1102.

and Magnesium Products, Inc., treatment of [magnesium] furnace charge, (P.), B., 999.

Kemmer, H., carbon monoxide purification (detoxification) of town's gas, B., 434.

Kemmer, N., and Weisskopf, V., deviations from the Maxwell equations resulting from the theory of the positron, A., 660.

Kemner, II., cooking of oiticica oil, B., 28. Characteristics of Hiroo dammar, and its use in the varnish industry, B., 751. Improvement of rosin, B., 801. Types of rosin, B., 1006.

Kemp, A. R. See Bell Telephone Labs., Ingmanson, J. H., and Electrical Re-

search Products.

Kemp, A. V. See Gas Chambers & Coke Ovens, Ltd., and Thomas, O.

Kemp, C. R., and Thomsen, E. G., milled toilet soaps, B., 798.

Kemp, I., adsorption and heterogeneous catalysis, A., 434.

Kemp, $J.\ D.$ See Long, $E.\ A.$ Kemp, $J.\ T.$, copper and the copper-alloy metals, B., 457.

Kempf, C. A., Greenwood, D. A., and Nelson, V. E., removal of fluorine from drinking water in Iowa, B., 222.

Kempf, L. W., and Dean, W. A., free-cutting aluminium-serew machine stock,

See also Aluminium, Ltd., and Aluminum Co. of America.

Kempter, F. H. See Lock, G. Kemula, II., catalysis of acetylene polymerisation in ultra-violet light by mercury vapour, A., 37.

and Beer, E., influence of composition of solutions on the electrocapillary curve of mercury, A., 1072.

Kendal, L. P. See Berenblum, I. Kendall, E. C. See Koelsche, G. A., and Mason, H. L.

Kendall, F. E. See Heidelberger, M.

Kendall, J. D., dyes in photography, B., 524. Compounds of the cyanine type, (P.), B., 93. Dyes of the cyazine type, (P.), B., 782. Sensitisation of photographic emulsions, (P.), B., 782. Stabilisation of photographic emulsions, (P.), B., 1132.

Kendall, L. E., characteristics of ground-wood pulp for high-speed newsprint

machines, B., 980.

Kendall, R. See Mitchell, E. R. Kendall, W. B. See Walmsley, P. D.

Kenety, W. H., and Cellovis, Inc., drying and converting cellulose into derivatives thereof, (P.), B., 736.

Kenjo, M. See Suzuki, Kakuwo.

Kennedy, A. M., and Weller, W. H., jun., refining of graphite, (P.), B., 868.

Kennedy, E. R., Sage, B. H., and Lacey, W. N., phase equilibria in hydrocarbons. XIV. Joule-Thomson coefficients of n-butane and n-pentane, A., 930.

See also Lucas, H. J., and Sage, B. II. Kennedy, H. E. See Union Carbide & Carbon Res. Labs.

Kennedy, H. L., Portland cement: effects of catalysis and dispersion, B., 1095.

Kennedy, H. T., Lawton, H. C., and Gulf Res. & Development Corp., plugging of strata in [oil] wells, (P.), B., 777.

Kennedy, M.H. See Munsell, H.E. Kennedy, R.E. Sec Jones, G.W.

Kennedy, R. J., and Barkas, W., nebular red-shift, A., 538.

Kennedy, S. J. See Ferguson, A.

Kennedy, T., evaluation of wetting-out agents, B., 15. Determination of dyes in residual [dye] liquors, B., 590.

Kennedy, W. Q., influence of chemical factors on crystallisation of hornblende in igneous rocks, A., 185.

and Read, H. H., differentiated dyke of Newmains, Dumfriesshire, and its contact and contamination pheno-

mena, A., 1356. Kenner, J., and Knight, E. C., formation

of osazones, A., 457. and Nand, B. K. [with Grindley, R.] structural analogue of cinchene and its behaviour towards acid, A., 618.

and Statham, F. S., preparation of 4-alkyl- and 4-aryl-quinolines, A., 342. Stereochemistry of tervalent nitrogen, A., 346.

See also Baddeley, G.

Kenney, C. L., mashing apparatus for brewing, (P.), B., 712.

Kenney, $J.\ R.$ See Maclachlan, $W.\ W.\ G.$ Kenney, M. W., and Gen. Household Utilities Co., means for separating solution components, (P.), B., 816.

Kent, A. T. See Woodall-Duckham (1920), Ltd.

Kent, C. G., extension of the Manchester Corporation sewage works at Davyhulme, B., 300. Kent, J. W., water-cooled stone mill [for

paints]; its introduction and improvement, B., 29.

Kent-Jones, D. W., and Geddes, W. F., co-operative study of the utility of different methods for evaluating flour strength, B., 663.

Kenyon, J., and Partridge, S. M., resolution of phenyl-n-propylcarbinol, A., 330. Mechanism of asymmetric synthesis with reference to a new type, A., 1375.

Partridge, S. M., and Phillips, H., (+)- and (-)- γ -phenyl- α -methylallyl alcohols, A., 330.

Phillips, H., and Shutt, G. R., Walden inversion reactions of the p-toluenesulphinic and p-toluenesulphonic esters of ethyl d- β -hydroxy- β -phenylpropionate, A., 202.

See also Bean, C. M., Consden, R., Duveen, D. I., and Hills, H. W. J. Kenyon, W. O., and Gray, H. Le B.,

alkaline decomposition of cellulose nitrate. I. Quantitative, A., 1235. See also Eastman Kodak Co.

Keonghan, L. M., apparatus for drying sludge, (P.), B., 1184.

Képinov, L., adrenaline secretion in hypophysectomised dogs, A., 1029. See also Binet, L.

Keppeler, G., variability of chemical properties of glass surfaces, B., 146. and Körner, F., properties of bottle

glass, B., 146. Keppert, D., coloring cotton with crossdyes for pile-fabric construction, B., 405. Keramische Industrie-Bedarfs Akt.-Ges.,

controlling opening and closing of passages between gas-filled spaces, (P.), B., 770.

Kerasin, Ltd., benzine jelly, (P.), B., 87. Keresztesy, J. C. See Taylor, T. C.

Kereszty & Wolf, medicinal [mercurial] preparations having a diuretic effect, (P.), B., 908.

See also Földi, Z., and Wolf, E.

Kergonou, M. E., strychnine and barbituric acids, A., 503.

Kerimov, A., subtropical fruit trees of Azerbaidshan, A., 909.

Kerin, F. X. See Westinghouse Elec. & Manufg. Co.

Kerley, \tilde{C} . G., Lorenze, E. J., and Godfrey, E. R., calcium and inorganic phosphorus of blood-serum in dental caries, A., 100. Calcium and inorganic phosphorus in blood-serum of emotionally unbalanced children, A., 101.

Kerly, M., and Reid, C., relation of spleen to formation of glycogen in liver; rate of absorption of glucose and lactic acid, A., 235.

Kermack, W. O. See Davidson, J. N., and Goodall, R. R.

Kermer, M. J., and Buffalo Foundry & Machine Co., evaporator, (P.), B., 673, 963. Evaporator, (P.), B., 963.

Kern, E. F., and Amer. Metal Co., [tarnish-resisting] silver alloys, (P.), B., 239. Kern, J. G. See Nat. Aniline & Chem. Co. Kern, L. See Goetz, G.

Kern, R., and Chem. Fabr. R. Baumheier Akt.-Ges., emulsifying media, (P.), B., 242. Sized paper, (P.), B., 314. Testing the imperviousness to water of impregnated textiles, (P.), B., 591. Kern, W. See Staudinger, II.

Kernaghan, M., surface tension of mercury in presence of gases. I. Dry air, A., 1053.

Kernin, A. G., and Mosinee Paper Mills Co., smelting furnace for black liquor, (P.), B., 366.

Kernkamp, H. C. H., soil, iron, and copper and iron in prevention and treatment

of anæmia in suckling pigs, A., 1140. Kerns, F. W., and Egbert, W., apparatus for removing solids from liquids, (P.), B., 578.

Kerone, E. B. W. See Olsen, F., and Seavey, F. R.

Kerr, II., recent developments in the Woodall-Duckham system of carbonisation, B., 530.

Kerr, P. F., sp. gr. balance, A., 697. Kerrison, O. C., [base-exchange] watersoftening apparatus, (P.), B., 128.

Kershaw, A. See Imperial Chem. Industries.

Kershaw, I. B. Sec Reynolds, D. S.

Kershaw, W., azoic dyes and bleaching, B., 491.

Kershaw, $W.\ H.$ See Texas Co. Kersten, H., X-ray crystal-structural methods as an industrial research tool,

B., 460. and Young, W. T., electrodepositing alloys, B., 1161.

See also Blank, I. H., Dwight, C. H., and Young, W. T.

Kersten, M., magnetic behaviour of coldrolled iron-nickel alloys due to separation-hardening, B., 377. Physical investigations on new magnetic materials, B., 377.

Kersten, R. See Bauermeister, H.

Kertai, G., new occurrences in oxidation zone of Rudabánya, A., 958.

Kertess, A. F., [determination of] sulphonated aliphatic alcohols, B., 181.

Kertész, F. See Châtelet, M. Kertesz, Z. I., chemical determination of

quality of canned green peas, B., 345. Quality of canned whole kernel maize, B., 759.

See also Dahlberg, A. C., and Mack, G. L. Keseling, J. See Bünger, II. Kesler, T. L., granitic injection processes

in the Columbia quadrangle, South Carolina, A., 701. Kesper, J. F., VT steel, a new material of

high wear-resistance for plant construction, B., 838. Continuous tar-distillation process, B., 1187.

Kessel, \hat{W} , influence of molecular rotations on measurements of duration of fluores-

cence, A., 1445.

Kessener, H. J. N. H., treatment of sewage and other waste liquors, (P.), B., 718. and Ribbius, F. J., practical activatedsludge research, B., 301.

Kessler, D. W., action of "hypo" solution on stone tanks, B., 409. Test procedure for plastic caulking materials, B., 419.

Kessler, II., measurements on technical insulating materials at 3×10^6 to 7.5×10^7

Hertz, B., 417.

Kessler, W., cause of cold-resistance in plants, A., 393.

Kessler Chemical Corporation. See Goldschmidt, S.

Kessner, A., results of the [German]
Metal Management in construction and manufacture, B., 24.

and Specht, H., influence of cold deformation on welding properties of bare steel electrodes, B., 282.

Kesten, H. D. See Meeker, D. R. Keston, A. S. See Harned, H. S., and Urey, II. C. Kesztler, F. See Späth, E.

Kesztyüs, L., and Martin, J., influence of amino-acids on blood-sugar regulation in dogs with Eck fistulæ, A., 1414.

Ketcham, H. C. See Shaw, R. W. Ketcheson, H. See Texas Co.

Ketelaar, J. A. A., specific heat of Ag₂Hgl₄ in relation to crystal structure, A., 20. Crystal structure and colloid-chemical properties of vanadium pentoxide, A., 274, 1054. Crystal structure of thallium fluoride, A., 413. Crystal structure of potassium, rubidium, casium, and thallium silicofluorides and of LiMnO₄,3H₂O, A., 413. X-Ray analysis in chemistry, A., 1449.

and Sanders, J. K., crystal structure of thallium trithionate, Tl₂S₃O₆, A., 1327. See also Klinkenberg, L.J., and Smits, A.

Kethur, R. See Wittig, G. Ketkar. See Godbole, N. N.

Keutner, E., absorption in dipolar liquids in the region of 3-7 m. wave-length, A., 1182.

Keval, B., and Riederberger, (Mlle.) A., periods of natural and artificial radioactive bodies, existence of shells, and classification of atomic nuclei, A., 543.

Kevorkian, Z. H., apparatus for production of coke and recovery of by-products therefrom, (P.), B., 357.

Kew, T. J. See Salstrom, E. J.

Key, A., Etheridge, W., and Eastwood, A. H., 5th report of the [Gas-]Liquor Effluents and Ammonia Committee [of the Institution of Gas Engineers], B., 174.

Key, F. E., and Key Co., heat exchanger,

(P.), B., 575. Key Co. See Key, F. E. Keyes, G. H. See Brooker, L. G. S., and Kodak, Ltd.

Keyes, H. E., recovery of oxidised copper from ores, (P.), B., 106. Percolation leaching method, (P.), B., 528.

Keys, A. [with Consolazio, W. V.], determination of total base in blood and other biological fluids by the electrodialysis method of Adair and Keys,

A., 1038. and Adelson, L., calcium changes in plasma resulting from brief severe work and permeability of capillaries to calcium, A., 1412.

Hall, F. G., and Barron, E. S. G., oxygen dissociation curve of human blood at high altitudes, A., 1398.

Keyser, L. S., burette for potentiometric titrations, A., 583. Burette for alkali

titrations, A., 583. Keyston, J. E. See Brose, II. L.

Keystone Steel & Wire Co. See Simmons,

Keyworth, C. M., azoic dyes on silk, B., 492.

Khainsky. See under Chainski. Khalil, M., chemotherapy of schistosomiasis, A., 366.

Khambata, B. S., and Wassermann, A., kinetics of formation and decomposition of dicyclopentadiene, A., 684. Kinetics of an inverse diene synthesis in the pure liquid state, A., 1345.

Khan, G. See Desai, R. D.

Khanna, M. L. See Bhatnagar, S. S. Khanolkar, A. P. See Joshi, S. P.

Kharasch, M. S., and Ashford, T. A., co-ordination compounds of platinous halides with unsaturated substances, A., 1369.

King, H., Stoll, A., and Thompson, M. R., new ergot alkaloid, A., 489.

Legault, R. R., Wilder, A. B., and Gerard, R. W., metal catalysts in biological oxidations. I. The simple system: thioglycollic acid, buffer, metal, dithioglycollic acid. II. Tissue inhibitors, A., 631.

and Lilly & Co., E., stabilised organomercuri-sulphur compounds, (P.), B.,

and MeNab, M. C., addition of hydrogen bromide to allylacetic acid, A., 53. McNab, J. G., and McNab, M. C., per-

oxide effect in addition of reagents to unsaturated compounds. X. Addition of hydrogen bromide to methylacetylone (allylene), A., 310.

and Potts, W. M., peroxide effect in addition of reagents to unsaturated compounds. XI. Solvent effect in addition of hydrogen bromide to isobutene, A., 310.

Reinmuth, O., and Mayo, F. R., electron in organic chemistry. IV. Monohydroxy-compounds, A., 588.

Stanger, D. W., Bloodgood, M. A., and Legault, R. R., spectroscopic similarity between ergot (lysergic acid) and the yohimbine alkaloids, A., 489.

and Weinhouse, S., Grignard reagents: their reducing action and rates of addition, A., 1380.

See also Davis, M. E., and Lilly & Co.,

Khayyal, M. A., and Scott, C. M., effect of ovarian extracts on oxygen consumption of the uterus, A., 1156.

Kheifetz, V. L., and Vainer, J. V., electrolytic tin plates, B., 65.

See also Sovz, E. I., and Suchodski, V. A. Khelemski, M. Z., and Shoikhet, I. I., changes in preserved sugar juices during

storage, B., 388. Khorazo, D., "serum sickness" in rabbits following intravenous injection of various foreign sera: relation to precipitins, A., 94. See also Meyer, K.

Khouri, J., detection of hashish, pure or mixed with various drugs, by means of filtered ultra-violet light, B., 252.

Khouvine, Y., synthesis of cellulose by Acetobacter xylinum from various polyalcohols, A., 1300.

and Soeters, K., biology of B. cellulosae dissolvens, A., 899.

Ki-Heng, Y. See Wyart, J. Kiang, A. T., Ma, S. T., and Wu, T. Y., spectrum of doubly excited helium, A., 1437.

Sec also Wu, T. Y. Kibanov, V. P., substituting zine for tin in coating copper wire, B., 236.

Kick, C. H., Bethke, R. M., Edgington, B. H., Wilder, O. H. M., Record, P. R., Wilder, W., Hill, T. J., and Chase, S. W., fluorine in animal nutrition, B., 1232.

Kidd, F., and West, C., gas-storage of fruit. IV. Cox's orange pippin apples, B., 1175.

Kidd, J. G. See Rous, P. Kiderlen, O. See Wöhlisch, E. Kido, K., magnetic susceptibility disubstituted benzene derivatives, A.,

Kidson, E. B., phosphate status of Ashburton soils, B., 209. Effect of temperature on extraction of available phosphoric acid in soils, B., 806.

Kiefer, G. C., and Allegheny Steel Co., pickling solution [for stainless steels], (P.), B., 153. Descaling process [for stainless steels], (P.), B., 153.

Kieft, A. W. See Thomas & Co., Ltd., R. Kieft, L., and Chandlee, G. C., separation and determination of bismuth with gallic acid, A., 1354.

Kiehl, S. J., and Claussen, E., temperature coefficients in acid hydration of sodium pyrophosphate, A.,

See also Ellis, S. B.

Kiel, F., and Zellstofffabr. Waldhof, cellulose material, (P.), B., 589.

Kielhöfer. See Herberg. Kielland, J., thermodynamics of liberation of oxygen from ferric oxide-ferrous oxide melts, A., 160. Calculation of solubility of a mixture of hydrogen and nitrogen in water at 25° in the pressure range 50-1000 atmospheres, A., 559. E.m.f. of the cell Zn-Hg (2-phase) | $ZnSO_4$ (m) $PbSO_4$ (s) | Pb-Hg E.m.f. (2-phase) and its temperature coefficient at 25° and concentrations from 0.05 to 1.5M, A., 1467.

Kieltz, G., processing of spun viscose slub [fabrics], B., 1089.

Kiemstedt, H., reactions of organic per-

oxides and discovery of tetralin peroxide, B., 484.

Kienitz, G. A., pine stumps as raw material for production of wood pulp, resin, and turpentine, B., 1085.

Kienle, H., law of blackening of the photographic plate, A., 37. Photographic photometry, A., 37.

Kienle, R. II., structural chemistry of synthetic polymerides and their films, B., 943.

Kier, S. M., and Hartford, F. M., tunnel kiln, (P.), B., 234.

Kiernan, H. C. See Nat. Aniline & Chem. Co.

Kiesel, A., and Jatzina, R., formation of cell-wall substance [in plants], A.,

and Kuzmin, S., ehemistry of heatdenaturation of proteins, A., 493.

and Roganova, O., action of trypsin on substituted protein, A., 521.

Kiesel, H., and Witt, D., removal of carbon monoxide from town's gas, B., 1027.

Kieser, K., chemistry of selenium toning, B., 1180. Lime-fog and its obviation [in photography], B., 1236.

Kiesgen, A. See Wöhlisch, E.

Kiesskalt, S., and Schilde Maschinenbau

A.-G., B., apparatus for drying material, (P.), B., 48.
Kiessling, W., improved preparation of

enolphosphopyruvic acid, A., 1496.

See also Meyerhof, O. Kietaibl, K., dry distillation of wood and its

thermal balance sheet, B., 772. Kihara, G. See Tamura, K.

Kihara, Y., constitutonts of Actinidia callosa, Lindl., var. rufa, Makino, A., 1434. Carbohydrates of Allium bulbs. V. Carbohydrates of A. odorum and A. cepa. VI. Chemical and physical properties of scorodose, A., 1434.

Kihlgren, T. E., Pilling, N. B., and Wise, E. M., physical and casting properties of nickel-silvers, B., 23.

Kik, M. C., enzymic digestion of lactalbumin and caseinogen in vitro, A., 1557.

Kiketz, V. A., spectro-chemical analysis of waste products of the Konstantinov zine works, B., 840.

See also Plotnikov, V. A.

Kikoin, A. K. See Schubnikov, L. V. Kikuchi, Seishi, Aoki, H., and Husimi, K., recombination of neutron with proton, A., 266. Energy of γ-rays excited by slow neutrons, A., 402. Excitation of y-rays by fast neutrons, A., 541. Excitation of y-rays in boron, A., 772. Quantum energy of γ -rays excited by slow neutrons, A., 1044.

Nakagawa, S., Aoki, H., and Husimi, K., experiments with neutrons produced by bombardment of deuterons

with deuterons, A., 772.

Kikuchi, Shin-ichi. See Kameyama, N. Kikuth, W., experimental chemotherapy in

malaria, A., 366.

Kikuti, Y. See Kita, G.

Kilayko, V. M., high-test molasses or

"invert syrup" for distilleries, B., 165. Kilde, G., boric acids and borates; borax as titration substance, A., 1479.

Kilian, V., anomalous crystallisation of sodium chloride in normal and in sarcomatous blood-serum, A., 100.

Killam, E. T. See Potter, A.

Killeffer, D. H., chlorinated solvents in drycleaning, B., 787. Automatic glass blowing, B., 989.

Killian, C., and Feher, D., microbiological

phenomena of Sahara soils, B., 33. Killian, D. B., Hennion, G. F., and Nieuwland, J. A., preparation of ketals of alkylacetylenes with higher alcohols, A., 312. Alkylacetylenes and their additive products. XII. Addition of methanol to alkenylacetylenes. XIV. Synthesis of dioxolan derivatives from alkylacetylenes, A., 961, 1387. See also Danehy, J. P.

Killian, F., primary battery [dry cell],

(P.), B., 797.

Killian, H., use of coramine for combating poisoning from narcotics and hypnotics, A., 107.

Killian, J. A. See Cohen, M. Killner, W. See Newington, F. H.

Kilp, W., carbonic acid washing [in distillery fermentations], B., 118. and Buse, R., action of [fermenting]

molasses on boiler scale containing gypsum, B., 1226.

Kilpatrick, M., colorimetric determination of $p_{\rm H}$ in aqueous solution, A., 176,

Kilpi, S., titration of a dibasic acid in stages, A., 176. Theory of titration in stages of mixtures of acids and bases, A., 302. Determination of basic dissociation constants and ionic products of solvents in acetic acid. I. Equations. 11. Experimental results, A., 564. Theory of titration error, A., 692. Dissociation constants and basic titration of acetic acid in relation to water content of solvent, A., 1203. Accuracy of acid-base titrations calculated from titration curves, A., 1477.

Kilpper, W. See Brecht, W. Kim, C. K. See Ingersoll, A. W. Kim, M. S., blood-chloride in healthy Koreans, A., 357.

Kim, M. S., and Ivy, A. C., gastric secretagogic value of various digestive

secretions, A., 1405. Kimball, C. S. Sec Snell, F. D.

Kimball, F. E., refining gasoline with zine chloride, (P.), B., 228. Kimball, M. H. See Chace, E. M.

Kimball, R. H., comparison of rate of racemisation with rate of enolisation [of l-methyl d-a-phenylacetoacetate], A.,

Kimm, R. H., constituents of rice embryo. II. Vitamin-E, A., 1162.

Kimpel, W. See Micheel, F. Kimura, H., preparation of remedies for gonorrhea and dental suppurating diseases, more especially discharge of alveolar pus, (P.), B., 907.

Kimura, K. See Arakatsu, B.

Kimura, Kintaro, and Kumakura, S., detection of decomposition of fish meat as shown by contents of ammonia, B., 41. Kimura, M. See Hatoyama, M.

Kimura, O., viscosity of the critical mixture for the ternary system benzene-alcohol-water, A., 558. Effect of supersonic waves on viscosity of colloids, A., 1067.

Kimura, W., halogenation of the thiocyanates of polyethylenic acids; synthesis of halogenothiocyanates of ethyl

linoleate, A., 705.

and Nihayashi, M., p-xenylamine as new reagent for identification of fatty acids and fatty acid derivatives; synthesis of the p-xonylamides [p-phenylanilides] of oleic and claidic acid and their bromo-derivatives, A., 53.

Kinbara, T., propagation of combustion along the surface of inflammable liquid. V. and VI. Effect of wind on velocity of

propagation, A., 1469.

Kinder, D. E. See Gilmer, R. S.
Kindermann, G., compositions for fire-proofing fabrics, (P.), B., 144.

Kindle, E. M., manganese concretions in Nova Scotia lakes, A., 308.

Kindler, H. See Steubing, W

Kindler, K., and Gehlhaar, E., synthesis of pharmacologically important carb-oxylic acids. II. Synthesis of sub-stituted phenylacetic acids from aromatic aldehydes, A., 1508.

Peschke, W., and **Brandt**, E., syntheses of pharmacologically important amines. XI. Preparation of arylethylamines and arylethanolamines by catalytic reduction, A., 200.

Kindler, K. F., gold-coloured [copper] alloy, (P.), B., 602.

Kindman, K. See Bergström, II. Kineri, S. See Okuno, II. Kinetic Chemicals, Inc. See Croco, C. W., Daudt, H. W., Holt, L. C., Jones, H. L. B., Mattison, E. L., and Youker, M, A.

King, A., James, F. W., Lawson, C. G., and Briscoe, H. V. A., selective adsorption of heavy water, A., 154.

and Lawson, C. G., adsorption isotherm of heavy water on charcoal, A., 422.

King, A. E. See Christensen, B. E. King, A. J. See Barry, A. J.

King, (Miss) A. M., and Garner, W. E. heats of crystallisation of methyl and ethyl esters of monobasic fatty acids, A., 1453. M.p. of long-chain carbon compounds, A., 1453.

King, A. S., temperature classification of samarium lines, A., 2. Sec also Meggers, W. F.

King, C. G., and Menten, M. L., influence of vitamin-C level on resistance to diphtheria toxin. I. Changes in bodyweight and duration of life. II. Diffuse hyperplastic arterioselerosis and degeneration in various organs, A., 120. See also Lyman, C. M., Mack, G. L.,

and Tressler, D. K.
King, C. K. See Wei, Y. S.
King, C. R. See Ralston, O. C.

King, C. V., and Bolinger, E. C., catalytic decomposition of diazoacetate ion in aqueous solution, A., 1346. and Catheart, W. H., interdiffusion of

acid and base in aqueous solution,

A., 1336.

and Weidenhammer, L., rate of solution of copper in dilute aqueous reagents, A., 685.

King, E. C. F. See Pyrenc Co., Ltd.

King, E. G., and Hibbert, H., lignin and related compounds. XX. Methanol lignin and its relation to the so-called primary lignin" of Friedrich and Diwald, A., 609.

King, E. J., Haslewood, G. A. D., and Grant, G. A., Harding sugar reagent,

A., 826.

and Watson, J. L., salts of silicomolybdic acid with organic bases: gravimetric determination of small amounts of silica as pyramidone silicomolybdate, A., S12.

See also Armstrong, A. R., and Hasle-

wood, G. A. D.

King, F. B., Morris, H. P., and Whiteman, E. F., methods and apparatus used in measuring quality of eggs for cake-making, B., 390.

King, F. E., L'Ecuyer, P., and Openshaw, II. T., preparation of aldehydes from nitriles (Stephen's method); y-phthalimidobutaldehyde, A., 725.

L'Ecuyer, P., and Pyman, F. L., α - and β-hydroxylaudanosines. I. Their preparation from papaverinol, A., 1003.

and Paterson, G. D., tetra-anisylpyrrole, A., 612.

King, G. See James, R. W. King, G. B. See Gilbertson, L. I., and Redfield, H. L.

King, G. D., and U.S. Gypsum Co., sound-

absorbing compositions, (P.), B., 149.

King, G. W., Armstrong, R. T., and

Harris, L., vibrational levels of cyclopropane, A., 1318.

King, H., curare alkaloids. II. Tubocurarine and bebeerine, A., 1395.

See also Dyke, W. J. C., and Kharasch, M.S.

King, H. H. See Benne, E. J.King, H. J. H., and Hopper, W. S., malt, (P.), B., 614.

King, II. J. S., chromic pierate, A., 947. King, H. L., and Nat. Grain Yeast Corp., treatment of distillery slop [for use as

yeast nutrient], (P.), B., 759. King, J. G., technique of hydrogenation

of coal and its products, B., 772. and Cawley, C. M., hydrogenation-crack-

ing of tars. II. Preparation of catalyst, B., 259. Tar as fuel, B., 966. Maries, M. B., and Crossley, H. E.,

formulæ for calculation of coal analyses to a basis of coal substance free from mineral matter, B., 1074.

and Shaw, J. F., development of an intermediate-scale plant for high-pressure hydrogenation of tar and tar distillates, B., 727.

King, J. G., Williams, B. H., and Thomas, R. V., water-gas process, B., 132. See also Cawley, C. M., Horton, L., and

Jamieson, J. King,

K. Y., probable fuel reserves in China, B., 1136. and Hsiung, S. Y., caking properties of Tatung coal, B., 1136.

King, L. D. P. See Heydenburg, N. P.

King, L. P., and Hsung, M. C., sp. gr. and water content of brains of vertebrate animals. I. Birds, A., 498.

King, N. S., nephritis in the dog: differential diagnosis with special reference to

urine analysis, A., 883.

King, R. B., photographic photometry of iron multiplets in electric furnace spectra, A., 397.

King. R. D., and Socony-Vacuum Oil Co., penetrating lubricant, (P.), B., 822. King, R. L. See Beams, H. W.

King, R. M., enamel adherence. XII. Chemical and X-ray examination of metallic precipitates from enamels containing iron and cobalt oxides, B., 1040.

King, R. O., and Mole, G., explosion of mixtures of combustible gases with air by nuclear drops of water and other nuclei and by X-rays. V. Experimental conditions required for ignition of hydrogen-air mixtures and nuclei. VI. Nuclear drop-ignition temperatures of ethylene-air mixtures passing through a silica combustion tube. VII. Effect of a variety of nuclei, mainly mineral dusts, to ignite and explode a mixture of hydrogen and air; exceptional efficacy of Ni₂O₃ dust to ignite mixtures of air with hydrogen, ethylene, or methane, A., 33.

King, S. G. H. B., Marchbanks, M. J., and Associated Electrical Industries, induction electric furnace installations, (P.), B.,

417.

Kingery, L. B. See Woodward, G. J. Kingisepp, G., removal of cardiac glucosides

from the frog's ventricle, A., 241.

Kingman, F. E. T., decomposition of hydrogen sulphide and water on molybdenum filaments, A., 807.

and Rideal, E. K., effect of promoters on molybdenum catalysts in hydro-

genation, A., 686.

Kingman, K., and Union Oil Co. of California, purification of propane, (P.),

Kingsbury, A. H., and Crucible Steel Co. of America, alloy steel [for cutting tools], (P.), B., 601.

Kinkulskaja, R. N. See Fedoteev, N. P.,

and Stender, V. V.
Kinnear, H. B. See Lorig, C. H.
Kinnersley, H. W., potassium in the brain in vitamin- B_1 deficiency, A., 1429. and **Peters**, R. A., crystalline torulin

(as vitamin- B_1) and the international

vitamin-B₁ standard, A., 905.

Kinney, C. R., and Pontz, D. F., structure of organoboron oxides, A., 491. Mol. wts. of organoboric acids, A., 491.

Thompson, H. T., and Cheney, L. C., preparation of boron alkoxy-halides and their reaction with metals, A., 321.

See also Bonner, W. D.

Kinney, G. F., and Garman, R. L., vacuumtube voltmeter, A., 955.

Kinney, R. See Bullock, L. T. Kinnison, A. F. See Finch, A. H. **Kino,** $K_{\cdot \cdot}$, polymerisation of methyl esters of higher unsaturated fatty acids. XVI. Polymerisation of methyl stearolate. XVII. Increase in iodine value of the

polymerisation product, A., 541, 705. Kinoshita, K., changes of weight of electrodes of the lead-acid storage cell in course of discharge, B., 1103.

Kinoshita, R. See Nishizawa, K. Kinross, F. M. See Rudd, G. V. Kinsella, E. See Brit. Celanese.

Kinsey, B. B. See Thornton, R. L. Kinsey, E. L., and Ellis, J. W., infra-red absorption spectrum of water alcohols in non-polar solvents, A., 268.

Kinsler, L. E., Zeeman effect in neon, A., 397.

and Houston, W. V., Zeeman effect in helium, A., 397. Kinzel, A. B., metallurgical effects pro-

duced in steel by fusion-welding, B., 22. Physical testing of slag, B., 410.

Welding alloy steels, B., 1210. Crafts, W., and Electro Metallurg. Co., machine element, (P.), B., 1101.

and Electro Metallurg. Co., alloy-steel spring, (P.), B., 153. Case-hardening [of steel], (P.), B., 239.

Kinzer, G. D. See Almy, G. M.

Kinzie, C. J., Commons, C. H., jun., Hake, D. S., and Titanium Alloy Manuig. Co., clay products for vitreous slips, (P.), B., 103.

and Miller, J. B., testing adherence of ground-coats to metal, B., 102.

and Titanium Alloy Manufg. Co., alkali metal zirconium tartrate, (P.), B., 932. Zirconium silicon alkali metal composites, (P.), B., 932. Zirconium silicon alkali solution and stabilisation thereof, (P.), B., 988.

Kinzoku Zairyo Kenkyusho, magnetic dust cores, (P.), B., 1102. [Titaniumnickel-iron alloys for permanent magnets, (P.), B., 1162.

Kip, A. F. See Evans, R. D. Kip, C. J. See Böeseken, J.

Kipfer, P., accuracy of measurement of null method of dosage of radium, A., 957.

See also Stahel, E.

Kipp, E. M. See Alter, C. M. Kippe, K. H., and Meyer, D., electrolytic determination of non-metallic inclusions in iron and steel, B., 1155.

Kipper, H. B., digestion of vegetable growths to produce cellulose, (P.), B., 587. Kipping, F. S. See Abrams, J. T.

Kiprianov, A. I., and Korneitsch, K. F., action of alkali hydroxides on polychlorides of naphthene hydrocarbons,

and Kusner, T. S., reactions of aminocthyl alcohol with aldehydes and malonic acid, A., 1109.

Sitnik, Z. P., and Grigorieva, N. E., synthesis of benzthiazole and its μ -alkyl-derivatives, A., 1001.

Sitnik, Z. P., and Sitsch, E. D., cyanine dyes. I. Thiocarbocyanines, A., 1002. Structure of cyanine dyes, and their optical and photographic properties. II. Thiocyanines with sulphur-containing substituents, Λ ., 1130.

Kirby, G. W. See Frey, C. N. Kirby, R. H. See Gilman, H. Kirby, W. W., Scott, J. A., jun., Wagner, F. J., and Piano-Finishing Co., reproduction of wood graining and surface designs, (P.), B., 1096.

Kircher, H. S. See Ivins, E.

Kirchhof, F., rôle of rubber hydrocarbon in plants, B., 422. Hydrocaoutchoucs, B., 609. Colloid-chemical foundations of the modern rubber industry, B., 803. Progress of rubber and its synthetic substitutes, B., 1008.

Kirchhof, II. See Schmitt, I.

Kirchner, II., inlluence of tension, pressure and torsion on longitudinal magnetostriction, A., 1187.
Kirchner, H. P., and Carborundum Co.,

silicon carbide, (P.), B., 1095.

Kirchrath, H., electrostatic dust and tar removal [from gases], B., 699.

Kirchstein, B. See Holm, R.

Kireev, V. A., Kaplan, S. I., and Vasneva, K. I., equilibria in liquid mixtures and solutions. II. Solubility of carbonyl chloride in certain solvents at pressures less than atmospheric, A., 1194.

Kaplan, S. I., and Zlobin, V. N., equilibria in liquid mixtures and solutions. IV. B.p. and composition of vapour of solutions of carbonyl chloride in dichloroethane and xylene, A., 23.

Klinov, I. J., and Grigorovitsch, A. N., b.p. and composition of the vapour phase of the ternary system ethyl acetate-cthyl alcohol-water, A., 280. B.p. and composition of the vapour phase in the ternary system sulphuric acid-nitric acid-water, A., 789.

and Nikiforova, V. A., vapour pressure of certain substances, A., 930.

and Popov, A. A., determination of

vapour pressure, A., 447.

and Romantschuk, M. A., equilibria in liquid mixtures and solutions; solubility in different solvents, at less than atmospheric pressure. IX. Acetylene and vinyl chloride, at 0°. X. Hydrogen and methane at -20° to 40°, A., 932. and Vagranskaja, L. J., solubility of

sodium eyanide in water and in aqueous sodium hydroxide, A., 25.

Kirigin, F., degradation of pyretbrin in chrysanthemum flowers (C. cinerariæfolium), A., 1306.

Kirikov, A. P., Bogoslovskaja, T., and Gorsehkov, G., emanation capacity of ores and rocks of the Taboshar uraniumradium deposit, A., 585.

Kirillov, E., Kitaigorodski, M., and Mol-chanov, A., voltaic photo-effect in silver halides, A., 1181.

Kirillov, M. M., micro-determination of

bismuth compounds, A., 953.
Kirilov-Drenovski, A., six-day treatment with atebrine, atebrine+plasmoquineplasmoquine - compositum, simplex, quinoplasmine, and quinine, A., 627. Kiritschenko, K. S., swamping in rice soils,

B., 35.

Kiriyama, S., decomposition of atropine in peripheral lymph of the rabbit, A.,

Kirk, E., Lewis, W. H., jun., and Thompson W. R., effect of age on plasma calcium content of men, A., 93.

See also Page, I. H.

Kirk, E. W. See Brit. Celanese.

Kirk, M. P., and Kirk & Sons, Inc., M. P., plumbite solutions [for refining petroleum oils], (P.), B., 274.

Kirk, P. L., one-piece glass micro-Kjeldahl distillation apparatus, A., 955.

See also Dubnoff, J.

Kirk, R. C., and Bradt, W. E., decomposition and equilibrium reaction potentials of fused potassium chloride, A., 430. Determination of decomposition potentials of fused salt mixtures containing tantalum oxide, A., 1467. Determination of decomposition potentials of fused salts, A., 1467.

Kirk, W. G., Thomas, B. H., and Culbertson, C. C., effect on antirachitic activity of their milk when ewes were exposed to sunshine and ultra-violet rays, A., 1430. Kirk & Sons, Inc., M. P. See Kirk, M. P.

Kirkaldy, J. F., base of the Gault in Sussex, A., 700.

Kirkhope, J., adaptability of chamber ovens for "triple process" of gas manufacture,

Kirkkomäki, T. See Virtanen, A. I. Kirkland, J., filter easings or shells, (P.),

Kirklees, Ltd., and Bennett, A., bleaching or other treatment with liquid of artificial silk yarn, (P.), B., 315.

Kirkman, F. J., economic control of drycell manufacture, B., 747.

Kirkpatrick, D. E., absorption bands of gaseous HI, A., 267.

and Salant, E. O., overtone absorption bands of gaseous HF, A., 136. See also Salant, E. O.

Kirkpatrick, H. L. See Craft, B. C. Kirkpatrick, W. H., and Gilman, H., pyridine and quinoline derivatives of dibenzfuran and their physiological properties, A., 347.

Kirkwood, J. G., theory of dielectric polarisation, A., 1321.

Kirner, W. R., direct simultaneous microdetermination of carbon, hydrogen, and oxygen. II. Analysis of pure compounds containing carbon, hydrogen, oxygen, and sulphur. III. Analysis of pure compounds containing carbon, hydrogen, oxygen, and nitrogen. IV. Analysis of bituminous coals and derived products, A., 218; B., 224. See also Silbert, F. C.

Kirov, A., derivation of general formula for velocity of crystallisation of sucrose from experimental data, A., 1074.

Kirrmann, A., Goudard, M., and Chahidzadeh, M., β -chloropropaldchyde and its derivatives, A., 191.

and Renn, P., mechanism of the allyl

change, A., 962.
Kirsanov, A., alleged dihydrophenylbenzamidine, A., 604.

and Ivaschtschenko, J. d Ivaschtschenko, J. N., alleged dihydrophenylbenzamidine, A., 63. Mechanism of ammation by sodamide. Preparation of substituted amidines, A., 198, 716.

and Klimenko, $J.\ V.$, extraction of manganese from ores by chemical means, B., 191.

and Poljakova, I., mechanism of amination by sodamide. II. Formation of unsubstituted aromatic amidines by the action of sodamide on aromatic nitriles, A., 1248.

Poljakova, I. M., and Ivaschtschenko, J. N., application of ozone to examination of petroleum products. II., B., 178.

and Sazonova, T. V., vanado-organic compounds. I., A., 90.

and Tscherkassov, V., oxidation-reduction indicators, I. N-Phenylanthranilic acid, A., 813.

Kirsanov, A. T., action of soil moisture on the physiological process and chemical composition of beets, B., 709.

Kirsch, R. E. See Pincus, G.

Kirsch, W., and Jantzon, H., yield of crude and digestible nutrients in beet, sunflower, and maize, stemmed kale, B., 474. See also Bünger, H.

Kirschbaum, Emil. rectification technology, B., 768.

and Schimunek, J., evaporation of tanning liquors, B., 162.

Kirschbaum, Ernst. See Reichel, L.

Kirschbraun, L., and Patent & Licensing Corp., building material [felt], (P.), B., 696.

Kirschstein, B., and Koppelmann, F., photographic and spectroscopic investigation of arcs with high current density, A., 1438.

See also **Holm**, R.

Kirsebom, G. N., and Calloy, Ltd., beryllium oxyfluoride and metallic beryllium therefrom, (P.), B., 494. Obtaining alkalineearth metals [magnesium] by electrolysis, (P.), B., 506. Magnesium, (P.), B., 1049. Reduction of metalliferous materials [alkaline-earth oxides], (P.), B., 1162.

Kirst, W. E. See Du Pont de Nemours & Co., E. I.

Kirstahler, A., and Kaiser, W. J., thio-

sulphate esters, (P.), B., 871

Kirsten, G. W., and Smith, G. B. L., reduction of nitroguanidine. V. Synthesis of y-amino-a-methyl-, -a-ethyl-, and -a-n-butylguanidine, A., 829.

Kisch, B., chemical specificity of heart muscle, A., 498. Aminodehydrogenases of the animal body, A., 1296.

Kise, M. A., silk-fibroin dispergation, B., 924.

Kiselnof, M. See Morgulis, A. Kiselnikov, V. N. See Minaev, V. I.

Kiser, M., and Indian Refining Co., lowpour [point] lubricating oil, (P.), B., 918. Kishen, J., dissociative equilibrium and

pair generation, A., 1442. Kishi, K., constituents of mulberry leaves. IX., A., 629.

Kishi, S., rabbits' bile. I. a. and β -Lagodeoxycholic acid and lithocholic acid, A., 469.

See also Toyoda, II.

Kishi, Y., constituents of mulberry leaves, especially proteins. XI. Distribution of amino-acids in leaf proteins. XII. Solubility of leaf proteins and its application, A., 913.

Kishino, S., solid solubility of magnesium in aluminium, A., 280. Hardening effects of heat treatment on aldrey-type

light alloys, B., 24.

Kishner, N., and Krasova, V., composition of xylene from coal tar and petroleum, B., 865.

Kisker, H., determination of sediment in water and effluents, B., 957.

Kiss, A. von, constitution of sulphatocompounds, A., 440.

Kiss, J. See Gönczy, V. I. von. Kissel, P. See De Lavergne, I'.

Kisselmann, W., and Becker, A., electrical conductivity of alkali metal flames, A., 277.

Kissilev, M., chrome dyes and mordants in dyeing and printing, B., 589.

Kissin, B. I., and Kuligin, N. V., recovery of aniline from waste water from diphenylamine production, B., 11.

Kistiakowski, G. B., and Lacher, J. R., kinetics of gaseous Diels-Alder reactions, A., 297.

and Mears, W. H., kinetics of cyclopentadiene, A., 939.

Ruhoff, J. R., Smith, H. A., and Vaughan, W. E., heats of organic reactions. 111. Hydrogenation of some higher olefines. IV. Hydrogenation of dienes and of benzene, A., 291.

and Smith, W. R., kinetics of thermal cis-trans-isomerisations. V., A., 802. Kinetics of racemisation of 2:2'-diamino-6:6'-dimethyldiphenyl, A., 940.

See also Brearley, D., and Cuthbertson,

Kistiakowski, V. A., methods of physicochemical analysis, A., 949.

Kita, G. [with Suda, T., and Matsubara, F.], viscose. LXII. Use of diaphragm caustic soda in its manufacture, B., 185.

Monden, S., Ikeda, T., and Kikuti, Y., viscose. LXV. Production of strong fine filaments from viscose from fresh alkali-cellulose, B., 783.

Monden, S., Kanno, G., Kadowaki, K., and Ikeda, T., viscose. LXIII. Spinning of normal viscose in concentrated

sulphuric acid to produce strong, fino filaments, B., 364.
Riko, S., Akizuki, Y., and Kikuti, Y., viscose. LXIV. Spinning by the twobath procedure to produce strong,

fine filaments, B., 364.

Suzuki, S., and Suehiro, S., viscose. LXVI. Connexion between the ageing of alkali-cellulose and the viscosity of viscose, B., 979.

Kitagawa, C. See Kosaka, Y.
Kitagawa, H. See Shibata, Z.
Kitagawa, M., Sawada, K., and Hosoki,
Y., canavanine. V. Natural occurrence of y-ethylidenecanaline, tho condensation product between canaline and acetaldehyde, during the enzymic hydrolysis of canavanine, A., 1297.

and Takani, A., canavanine. IV. Constitution of canavanine and canaline. VI., A., 320, 1236.

and Wada, M., nutritive value of canavanine, A., 368.

Kitagawa, R., absorption of fat through the large intestine, A., 630.

Kitahara, K. See Katagiri, H.

Kitaigorodski, A., recrystallisation of copper-zinc alloys with zinc contents up to 7%, B., 744.

Kitaigorodski, I. I., intensification of glassmelting processes, B., 1152.

Bokunjaeva, V. I., and Polljak, V. V., conditions under which the [glass] batch separates into layers, B., 834.

and Shkolnikov, J. A., refining glass by the generation of gas, B., 642.

Kitaigorodski, M. See Kirillov, E. Kitamura, E. See Nito, T.

Kitamura, R., reaction between organic sulphur compounds and hydrogen per-

oxide. III., A., 711.

Kitano, T., taka-amylase. VII. Purification by adsorption. VIII.—X. Selectivity of different adsorption materials. XI.—XIII., A., 519, 1024. See also Sakurada, I.

Kitasato, Z., constitution of acid sapogenins.

XI., A., 1261. [with Shishido, H.], constitution of acid sapogenins. XII., A., 1262.

Kitasato, Z. [with Sone, C., and Shishido, H.], constitution of acid sapogenins. X. Hederagenin and oleanolic acid, A., 1261.

Kitchel, R. L., and Hoskins, W. M., respiratory ventilation in the cockroach in air, in carbon dioxide, and in nicotine atmospheres, A., 1398.

Kitching, J. A., effects of hypertonic media on the contractile vacuoles of

protozon, A., 1422.

Kitching, J. S. See Dolman, C. E. Kitching, W. T. See Parrish, P. Kitschkina, A. S. See Kursanov, D. N.

Kitsugawa, K., perfusion of the stomach. XII. Perfusion with ornithine and

citrulline, A., 754.

Kittel, H. See Hüttig, G. F.

Kittel, S. See Waelsch, H.

Kittelberger, W. W., modern theory of corrosion, B., 994.

Kittredge, H. G., and Kay & Ess Chem. Corp., waterproofing and polishing compound for wood, (P.), B., 104. See also Turner, A. J.

Kiu, T., study, between 4000 and 2400 A., of the contrast of [photographic] plates treated with solutions of sodium sali-

cylate, B., 396.

Kiuz, A. K., tin deposits at Kuznetzk
Alatau, West Siberia, A., 184.

Kivekäs, J., rapid determination of readilysoluble plant nutrients, viz., calcium, magnesium, sodium, and potassium, in soil, B., 755.

Kiven, N. See D'Amour, F. E. Kivinen, E., plant-nutrient contents of moorland plants, B., 384. Presence of iron carbonate in moorland soils of Finland, B., 949.

Kiwit, K. See Scheil, E.

Kiyohara, K., Morita, M., and Muta, S., effect of potassium and calcium ions on blood-sugar, A., 239.

Kizber, A. I. See Kogan, I. M. Kizyk, A. See Ionescu, C. N., and Vintilesco, I.

Kjær, K. A., bactericidal action of some cuflavine preparations on Staphylococcus aureus and Bacillus pyocyaneus, A., 761.

Kjellgren, B. See Sawyer, C. B. Kjems, H. L. P. See Kongsted, A. J. H. **Kjerrman**, B., transformation temperatures of martensite and austenite in hardened

steels, B., 888.

Kjurktschan, A. See Ruibak, B. Klaassens, K. H., and Houwink, R., viscosity in solution and condensation velocity of phenol-formaldehyde resins, B., 894.

Kläui, K. See Miescher, G.

Klages, $B_{\cdot \cdot}$, and Klumb, $H_{\cdot \cdot}$, measurement of light scattered by disperse systems by means of tubular scattering cells, A.,

Klages, F., and Niemann, R., mannans. III. Constitution of salep-mannan; other carbohydrates of Tubera salep, A., 1095.

Klages, G. Sec Haase, T.

Klaiber, H., electrical conductivity and phase diagram of binary alloys; system sodium-lead, A., 790.

Klami, A. See Komppa, G.

Klammroth, H., chemical investigation of silicon carbide heating elements, B., 544. Klanfer, K., application of tridesolin in leather manufacture, B., 1114.

Klang, H. See Schlossmacher, K.

Klaphake, W. See Schering-Kahlbaum Akt.-Ges.

Klapproth, H. See Schöpf, C.

Klarenbeek, A., protection of skin against dichlorodicthyl sulphide by glycerin, B.,

Klarer, W. See Ruzicka, L. Klarmann, E., and Lehn & Fink, Inc., [bactericidal monoalkylchlorophenols, B., 859. Germicidal preparations, (P.), B., 395.

and Shternov, V. A., bactericidal value of coal-tar disinfectants; limitations of the B. typhosus phenol coefficient as a measure, B., 1182.

Klarmann, H., and Bothe, W., cloud chamber experiments with γ - and β -rays in xenon and krypton, A., 1440.

Klas, H. See Tichy, G.

Klasens, H. A., Perdok, W. G., and Terpstra, P., crystallography of magnesium, cobalt, and nickel sulphites, A., 1450.

Klason, P., formation of lignin in wood, A., 857. Relations between the natural system of plants and their chemical structure, A., 1036. Determination of lignin in wood, B., 194.

Klass, R. See Friedemann, T. E.

Klatt, R., amorphous carbon [for rubber] and its evaluation. I., B., 434.

and Jelinek, H., catalytic air-oxidation of petroleum in the vapour phase, B.,

and Margosches, K. G., rapid iodine method [and its application] for castor oil, B., 159.

Tietze, W., and Gschaider, B., amorphous carbon [for rubber] and its evaluation. II. and III., B., 434.

Klauder, J. V. See Brown, H.
Klauditz, W. See Fries, K.
Klaus, E. J. See Bandow, F.
Klausner, E. See Glässner, K.
Klazinga, W. M. See Schonebaum, C. W.

Klebanski, A. L., and Tschevuitschalova, K. K., combination of organic acids with vinylacetylene to form buta-

diene esters, B., 848. and Vassilieva, V. G., study of the structure of polymerides of chloroprene by ozonolysis and oxidation by nitric acid. I., A., 962. Structure of synthetic rubbers; polychloroprenes, B.,

Volkenschtein, A. S., and Orlova, A. P., synthesis of aβ-dichlorobutadiene, and its polymerisation, A., 187.

Kleber, W., electrostatic field and energy conditions in neighbourhood of a lattice edge, A., 134.

and Schroeder, R., morphological and structural relations in cuprite, A., 783.

See also Ablfeld, F.

Klebsattel, C. A., new materials for [paint, varnish, and lacquer] coatings, B., 29.

Klee, H. See Lehmstedt, K. Kleef, G. van, derivatives of 2:4-di- and

2:4:5-tri-methylaniline, A., 1500. Kleeman, R. D. See Gen. Electric Co. Kleen, W. See Plato, G.

Klees, A. L., and Combustion Utilities Corp.,

heating process and apparatus, (P.), B., Kleibaumhüter, II., and Kleibaumhüter,

P., paper, (P.), B., 588.

Kleibaumhüter, P. See Kleibaumhüter,

Kleiber, M., Caldwell, R. W., and Johnson, H., losses of nitrogen and carbon in drying fæces of cattle, A., 1537. Kleiderer, E. C. See Chen, K. K.

Klein, A. See Quam, G. N. Klein, A. (Braunschweig). See Wittig, G. Klein, A. A. See Ridgway, R. R.

Klein, A. B., and Wilding, T. S., multicolour photography, (P.), B., 955.

Klein, A. E. See Perutz, A.

Klein, E., gastric secretion. V. Achlorhydria following partial gastrectomy for ulcer: histamine and the transplanted gastrie pouch. VI. Action of pilocarpine on secretion of a transplanted gastric pouch without Auerbach's plexus, A., 99, 881. Klein, F. S., and Minor, J. E., animal size

for [tub-sizing] fine papers, B., 365.

Klein, G., and Nienburg, H., introduction of

silicon into fats, A., 1368.
and Tschanpalova, N., effect of melting
temperature of fat mixtures on the consistency of margarine, B., 952. Klein, George. See Anable, F. M.

Klein, Gustav, and Beck, J., chemical composition of the nucleic acid of malignant tissue, A., 1014.

and Ziese, W., manganese salts as activators of arginase, A., 637.

Klein, Henry, Orent, E. R., and McCollum, E. V., effects of magnesium deficiency on teeth and their supporting structures

in rats, A., 225. Klein, Hugo. See Standard-I. G. Co. and Teichmann, C. F.

Klein, H. G., and Kurzhals, E., production of beechwood pulp by the sulphite process, B., 185.

Klein, J., correlation of mineral metabolism and the vegetative nervous system in thyroid disease, A., 101. Klein, L., and Pearce, W. T., polymerised

acrylic acid derivatives, B., 801. Klein, Louis. See Ashford, C. A.

Klein, (Mlle.) N., transformation in glass. B., 1040.

Klein, P. L., graphite-containing lubricants, (P.), B., 970.

Klein, S., enrichment of heavy spar by alkaline weathering solutions in a Frankish keuper-arkose, and its regional and geochemical significance, A., 700. Paragenetic relations and mode of formation of minerals and pseudomorphs of the Wendelstein range, Nürnberg, A., 1227. Paragenetic relations and mode of formation of minerals and pseudomorphs of the Wendelstein Höhenzug near Nürnberg, A., 1483.

Klein, S. J., solubility of Pneumococcus in saponin. III. Saponinlysis reaction as a means of differentiating Pneumococcus and Streptococcus, A., 114.

Kleinau, W. Sec Baroni, E, and Brunner, O. Kleinefenn, W., notched-bar toughness of fusion welds at low and high temperatures, B., 745.

Kleiner, I. S., and Tauber, H., antiscorbutic value of dandelion, A., 391.

Weisman, A. I., and Mishkind, D. I., preparation of non-toxic urine fractions for assay of male hormone by the female bitterling test, A., 1428.

See also Weisman, A. I.

Kleiner, M. J. See Meltsner, M. Kleinert, H. See Geissler, W. Kleinert, R., evaluation of sterilised and

unsterilised tragacanth, B., 429. Kleinhans, A., evaporation of boiler salts,

Kleinschmidt, R., Deines, G., and Olkers, acidity and the humus question in forest soils, B., 383.

Kleinschmidt, R. V., and Little, A. D., promoting chemical reactions in the electrical discharge, (P.), B., 1001.

Kleinschrod, F. C., measurement of number of colour centres in KCl crystals, A., 1181.

Klem, A. See Laland, P.

Klemenc, A., Wechsberg, R., and Wagner, Georg, preparation of carbon suboxide,

Klemensiewicz, Z., and Bodnar, Z., supposed radioactivity of lanthanum, yttrium, and antimony, A., 918.

and Projekt, K., electrical transport of an active deposit of radium in organic

liquids, A., 292.

Klement, R., fluorine content of bones and teeth, A., 95. Basic phosphates of bivalent metals. I. Basic magnesium phosphate, A., 1216. Carbonate con-tent of inorganic bone material and its synthesis, A., 1533.

Klementiev, blackening of metals, B., 201. Klemgard, E. N., laboratory service testing of automotive lubricating greases, B.,

532.

Klemm, L., and Klemm, W., magnetochemical investigations. XVIII. $K_2(B_2H_6)$ and $K_2(B_2H_4[OH]_2)$, A., 148. lemm, W., intermetallic compounds, Klemm, II A., 24.

and Hoschek, E., magnetochemical investigations. XX. Magnetic behaviour of simple vanadium compounds, A., 556.

and Neuber, (Frl.) A., magnetochemical investigations. XXII. Magnetic Magnetic behaviour of chromium-phenyl com-

pounds, A., 786.
and Schnick, I., gallium and indium compounds. XI. Heat of formation

of gallous oxide, A., 565.

and Sodomann, H., magnetochemical investigations. XIX. Magnetic behaviour of potassium polyoxides and polysulphides, A., 148.

and Steinberg, H., magnetochemical studies. XXI. Molybdenum and tungsten halides; magnetic behaviour of compounds of the higher transitional elements, A., 786.

See also Haurowitz, F., and Klemm, L.,

Klemperer, F. Sec Barron, E. S. G.
Klempt, W., and Ges. für Kohlentech.
m.b.H., separation of hydrogen cyanide from fuel gases, etc., (P.), B., 679.

Klenck, J. von. See Thiessen, P. A. Klenk, E., hydrogen peroxide as bleaching agent for artificial silk, B., 450.

Klenk, Ernst, apparatus for fractional vacuum distillation of small amounts of high-boiling mixtures, A., 1225.

and Ditt, F., oxidation of dl-a-hydroxystearic acid and its significance as regards structure of cerebronic acid, A., 54.

Klenk, W., stone mills for pigment grinding,

Klepitkova, O. M. See Rutovski, B. N. Klesper, R., semi-dry pressing of chamotte stones, B., 885.

Klevitzki. See Loginov, N. Klevke, V. A., preparation of ammonium nitrate in the gaseous phase, B., 639. and Chaskina, J. D., vapour pressure of nitric acid and ammonia over aqueous ammonium nitrate, A., 798.

and Strachova, E. N., elimination of dust from air by means of porous filters, B., 1022.

Kleweta, F. See Guertler, W.

Kliefoth, M. H., and Burgess Labs., Inc., C. F., indurated clay product, B., 276.

Kliegl, A., and Brösamle, A., 10-hydroxyacridone and "acridol." II., A., 343. Kligler, I. J., inhibitive effect of vitamin-C

on toxin production by C. diphtheria, A., 1423.

Klimenko, J. V. See Kirsanov, A.

Klimentova, A. A., and Avtonomova, E. S., effect of concentration of ammonia and of the time factor on the antigenic properties of a deformalinised anavaccine, A., 622.

Klimmer, O. See Wirth, W.

Klimov, V. A. See Kotscheschkov, K. A. Klimova, V. A. See Nesmejanov, A. N. Klimovitzkaja, II. B. See Kargin, V. A. Kline, K., butyric acid content of faces, A., 229.

Kline, L., butyric acid content of normal urine, A., 229. Microchemical determination of butyric acid, A., 1397. Determination of butyric acid in commercial acetic acids, B., 263. Determination

of butyric acid in ensilage, B., 473. Kline, \check{E} ., Barlow, H. \check{W} ., and Du Pont Rayon Co., production of a composition [pigmented viscose solution], (P.), B., 801.

Kline, G. M., organic plastics, B., 704. Kline, O. L., Elvehjem, C. A., and Hart, E. B., further evidence for the existence

of vitamin- B_4 , A., 765.

Kling, A., determination of tartaric acid [in musts and wines] as calcium racemate, B., 1122.

and Claraz, M., rapid determination of oxygen in atmospheric gases, A., 1219. and Demesse, J., tomatoes and tomato preserves, B., 810.

Gelin, E., and Demesse, J., rapid determination of dry extract of vegetable products, B., 472.

and Lecordier, G., influence of vitamin-D and certain carcinogenic hydrocarbons on the hydrophilic coefficient of lipins,

and Rouilly, M., action of carbonyl chloride chloromethyl chloroformates and carbonates on cholesterol, A., 69. Rapid detection of poison gases, B., 397. Rapid determination of carbon dioxide in gaseous atmospheres, B.,

Rouilly, M., and Claraz, M., determination of carbon monoxide in air, B., 693.

Kling, R., catalytic decomposition of bleaching powder liquor in presence of copper and copper oxide, B., 368.

Klingel, W. See Hesse, G. Klingelhoefer, W. C. See Kniskern,

Klinkenberg, L. J., and Ketelaar, J. A. A., crystal structure and constitution of BF₃,2H₂O, A., 275.

Klinkert, L., and Radio Corp. of America,

grid electrodes, (P.), B., 283. Klinkowski, M., Bechold copper test in diagnosing vitality of potato tubers,

B., 515. Klinov, I. J., and Schischkov, V. P., polymerisation of phenol-aldehyde resins within timber as an anti-corrosive measure, B., 62. Wood in chemical apparatus construction, B., 886.

See also Kireev, V. A. Klissiunis, N. See Joachimoglu, G. Klit, A., and Langseth, A., preparation of

deuterobenzene, A., 714. Kljachina, K. N. See Lishkevich, M. I.

Kljagina, W. See Bogaevski, G. Kljatschko, I. R., wetting hysteresis caused

by dispersity, A., 284.

Kljatschko, J. A., colloid-chemical phenomena in metals. I. Gases in aluminium. III. Micellar structure of liquid and solid metals and alloys, A., 25, 1460. Modified aluminium-silicon alloys. II., A., 152. Determination of silicon in aluminium alloys. I., B., 151.

Kljatschko-Gurvitsch, L. L., and Ogandshanova, H., equilibria in the system cobalt sulphate-sulphurie acid-water,

See also Valdman, A.

Klobusitzky, D. von, venom of Lachesis (Bothrops) snakes. II. Preparation of bothropotoxin, A., 622.

and König, P., venom of Lachesis (Bothrops) snakes. III. Separation of coagulatory principle from bothropotoxin and other constituents. IV. Action of the coagulatory principle in vivo, A., 1010, 1531.

Klockmann, R. See Leonhardt, H.

Klodt, W., and Dienst, C., ascites and retention of sodium, A., 1288.

Klöckner-Werke Akt.-Ges., magnesia poor in lime from dolomite, (P.), B., 1037.

Klönne, Max, and Klönne, Moritz, gas purifiers, (P.), B., 401.

Klönne, Moritz. See Klönne, Max.

Klötzer, F. See Fehér, F. Klonnek, F. See Sauter, V.

Klooster, H. S. van, and Harris, J. E., jun., magnesium silicide in 85:15 brass, B., 889.

and Petrovich, A., flocculation of stannic oxide sols. A., 795.

Klopstock, II., and Wurbs, A., neutral calcium hypochlorite which can be satisfactorily filtered, (P.), B., 789.

Klosky, S., and Amer. Agricultural Chem. Co., [phosphatic] mineral concentration, (P.), B., 145.

Kloss, A., cereal coffee, (P.), B., 570.

Kloss, H. See Sachs, P.

Klotschko, M. A., electrochemical isolation of light metals from non-aqueous solutions. I. Alkali metal salts, A., 808.

Klotz, L. J., nitrogen trichloride and other

gases as fungicides, B., 807. and Fawcett, H. S., Valencia [orange-] rind spot, B., 42. Rind breakdown of navel orange, B., 665.

Kluchevich, A. S., and Averko-Antonovich, L. T., acid soaps and middle soap, B., 1105.

Klüger, L., high-speed [steel] turning bits, milling tool, etc., (P.), B., 459.

Klueter, H., composite milk samples, B.,

Klug, H. P., molecular structure of diiodocthane; iodine bond resonance and molecular structure of di-iodoethylene; molecular packing in their crystal lattices, A., 16.

See also Taylor, T. I.

Kluge, H., use of ammonium sulphate serum of milk in serological investigations, A., 1405. Control of milk on basis of ammonia content, B., 713. Use of ammonium sulphate scrum of milk in serological investigations, B., 904. Kluge, L. See Reis, A.

Klugh, B. G., and Swann Fertilizer Co., concentrated fertiliser, (P.), B., 517.

Klughardt, A., measurements of glossiness and smoothness of photographic papers, B., 909.

Klumb, II., and Haase, T., determination of low gas pressures, A., 183.

and Odeuwald, R., light source for absorption spectroscopic investigations in the ultra-violet, A., 954.

See also Haase, T., and Klages, B.

Klumpp, A., etching processes for production of moulds, shaped articles, or patterns, (P.), B., 1047.

Klumpp, T. G., variability of non-hamo-

globin iron, A., 358.

Kluyver, A. J., "flat-sour" bacteria and conserves, B., 427. Bacterial fer-

mentation of sugars, B., 1122. and Hoogerheide, J. C., reduction intensity of living cells, A., 754. Relationship between metabolism of yeast and lactic acid bacteria and oxidationreduction potential of the medium, A., 1300.

Kminek, M., semi-microchemical determination of oxalic acid or lime, B., 1120. Nitrogen in sugar beets, 1935,

B., 1172.

See also Staněk, V., and Vondrák, J.

Knabe, R. See Grube, G.

Knadel, H. C. See Hunter, J. E.

Knaggs, J., and Portals, Ltd., waterproof paper, (P.), B., 15.

Knapp, A. W., scientific aspects of cacao fermentation. 1.—VI., B., 1125.

and Coward, K. H., vitamin-D activity of cacao shell. I. Effect of fermenting and drying of cacao on vitamin-D potency of cacao shell. II. Origin of vitamin-D in cacao shell, A., 256.

Knapp, D. E., [projection] screen, (P.), B., 1181.

Knapp, G., bituminised cement, B., 61. Knapp, O., chemical reaction of potassium nitrate in course of glass formation, B.,

Knapp, W., novel ring systems. II. 1:8-Naphthaloylnaphthalene, A., 726. Benzoxanthones. II., A., 1387.

Knappeis, G. G. See Buchthal, F.

Knauer, F. See Harteck, P. Knauff, W. See Hock, L.

Knauss, C. A., naphthenate driers, B., 800.

Knauss, H. P., and Ballard, S. S., rotational structure of Schumann-Runge bands of oxygen in the vacuum region, A., 127.

See also Strong, H. M.

Knaysi, G., nomogram for the relation between quinhydrone potential and $p_{\rm H}$ at various temperatures, A., 1072.

Knecht, W. See Brüche, E.

Knechtges, R. G. See Schafer, E. R. Kneeland, R. F. See Baker, G. L.

Kneip, A., and Winthrop Chem. Co., glass articles provided with designs, (P.), B.,

Knell, E., influence of arsenic on basal metabolism, blood-residual nitrogen, and reticulocytes in man, A., 889.

Knepper, W. See Schmahl, N. G. Knerr, H. C. See Smith, N. B.

Kneser, H. O., acoustic experiments for investigation of molecular collisions. A., 1057. Molecular absorption of sound in gases, A., 1057.

and Gauler, O., propagation of sound in partly dissociated gases, A., 1330.

Kniasev, V. See Rabinerson, A. Knibbs, N. V. S., and Pehrson, A. P., artificial stone, (P.), B., 1208.

Knichalik, P., inspissating, heating, and cooling of liquids and solutions in singleor multi-stage plants, (P.), B., 130.

Knick, II. See Eucken, A.

Knickerbocker, A. K. See Butler, E.

Knickmann, E., determination of fertiliser requirements of soils on the basis of root-, citric acid-, and water-soluble phosphates, B., 164.

Knidginitschev, M. I., variations in protein content of wheat and barley grains within one ear, B., 615.

Knight, A. II. See Imperial Chem. Indus-

Knight, B. C. J. G., and Fildes, P., filter of pyrex glass and stainless steel for use with Seitz filter-pads, A., 1307.

Knight, E. C. See Kenner, J.

Knight, II., design and application of electric furnaces, B., 332.

Knight, H. de B. See Brit. Thomson-Houston Co.

Knight, H. F., chlorine content of feathers, B., 880.

Knight, R. A. G., moisture content of timber in new buildings, B., 149.

Knight Corporation, B. B. C R.

Bulford, M. N. Knipp, C. T., renewed activity of radium bromide after heating, A., 5.

Knipp, E., transmission of gas by moulding materials in steel easting, B., 547.

Knipp, J. K., wave-mechanical treatment of the LiH molecule, A., 781.

and Uhlenbeck, G. E., emission of γ -radiation during the β -decay of

nuclei, A., 918. See also Feenberg, E.

Knipp, R. See Dilthey, W.

Knippenberg, E. See Alten, F. Kniskern, W. H., and Atmospheric Nitrogen Corp., dispensing of measured quantities of liquefied gas, (P.), B., 963.

Klingelhoefer, W. C., and Atmospheric Nitrogen Corp., urea composition, (P.),

Lawrence, C. K., and Atmospheric Nitrogen Corp., composition for production of fertilisers, (P.), B., 1062. Composition containing fertiliser materials, (P.), B., 1062. Composition containing urea and nitrates, (P.), B., 1062. A composition comprising ammonia, urea, and potassium salts, (P.), B., 1062.

Rohner, L. V., and Atmospheric Nitrogen Corp., animoniacal composition containing calcium nitrate, (P.), B., 1062.

Knoblich, G. See Kröner, W.

Knoch, H., surface apparatus for heat treatment of milk and other liquids, (P.), B., 911.

Knoefel, P. K., and Murrell, F. C., rate of production of anæsthesia in mice by ether containing aldehyde and peroxide, A., 107.

See also Alles, G. A.

Knöpfle, L. See Reihlen, H.

Knol, K. S., and Veldkamp, J., method for investigating artificially radioactive elements with very short periods, A., 542.

Knoll, M., charging potential and secondary emission of bodies irradiated with electrons, A., 129. Change in secondaryelectron emission of insulators and semiconductors on irradiation with electrons, A., 771.

Knoll Akt.-Ges., [therapeutic] preparations of 6-methylamino - 2-methyl - 2-heptene [methyl- $\beta(\zeta$ -methyl- Δ^{ϵ} -heptenyl)amine], (P.), B., 124.

Knoop, F., Ditt, F., Hecksteden, W., Maier, J., Merz, W., and Härle, R.. aminohydroxy-acids and their degradation in the animal body, A., 468.

and Martius, C., production of citric acid, A., 1231.

See also Martius, C.

Knopf, E. See Freudenberg, K.

Knopp, G., regeneration of used oils, B., 966. Knorr, C. A., and Schwartz, E., catalytic activity of palladium and overvoltage of hydrogen, A., 807. See also Kandler, L.

Knorr, H. V., and Albers, V. M., fluorescence of the chlorophyll series; fluorescence and photodecomposition in solutions of pheophorbide-b and methylphæophorbide-b, A., 1178.

See also Albers, V. M.

Knorre, G. F., Nekrassova, O. V., and Platonov, M. S., separate determination of carbon monoxide, hydrogen, and

methane, B., 580. Knote, R. See Henning, H. J.

Knothe, H. See Fischer, Joseph. Knott, E. M. See Daniels, A. L.

Knott, J. C., minerals for dairy cattle, A., 104.

Knowles, E. C. See Thurston, R. R.

Knowles, F. See Du Pont de Nemours & Co., E. I.

Knowles, J. T., and Libby, McNeill & Libby, food product, (P.), B., 1127.

Knowles, N. R., bacterial flora of foremilk and of rennet extract with special reference to acid proteolytic types, A., 898.

Knox, J. See Wilson, G. V. Knox, R. See Wooldridge, W. R. Knox, W. H., jun., and Victor Chem. Works, purification of concentrated phosphoric acid, (P.), B., 833. Monocalcium phosphate, (P.), B., 1092. Lime, (P.), B., 1150.

Knudsen, S. See Hostgaard, J. Knudsen, V. O., and Obert, L., transfer of translational and vibrational energy in oxygen as influenced by small impurities of water or ammonia vapour, A., 1185.

Knudson, A., and Sun-A-Sured, Inc., treatment of foods, (P.), B., 570.

Knüpper, H. See Bauer, Erich.

Knuth, E. See Billmann, E. Kny-Jones, F. G., and Ward, A. M., reaction between chlorodiphenylmethane and ethyl alcohol, A., 324.

Kobata, Y., synthesis of a-hydroxy- and a-amino-decoic acid from the oxidation product of oleic acid, A., 1230.

Kobayakawa, K. See Masaki, O. Kobayashi, K., Yamamoto, K., Ishikawa, Heishichi, and Hinonishi, S., synthesis of liquid hydrocarbons from natural gas. III. and IV. Discussion of pyrolysis of methane and of formation of acetylene from methane, B., 133.

Kobayashi, Masahisa. See Tsuchida, R. Kobayashi, Masami, catalytic decarburis-

ation of iron and steel, B., 547. Kôbayashi, R., common constituents of Japanese petroleum. V. Constituents

of the high-boiling fractions of Niitsu petroleum, B., 626. Furihata, M., and Kajimoto, S., knock-

ratings. I. The [lead tetra]ethyl effect, B., 179. Gasolines of high knock-rating. I. Production of gasoline by hydrodepolymerisation of caoutchouc, B., 355.

See also Tanaka, Yoshio.

Kobayashi, Takashi. Seo Shioiri, M. Kobayashi, Teinosuki. See Hoshino, T.

Kobayasi, E. See Matumoto, J.

Kobe, F. A., and Centenero, A. D., combustible sulphur in sulphite[-cellulose] waste liquor, B., 94.

Kobe, K. A., and Anderson, C. H., heat capacity of saturated sodium sulphate

solution, A., 798.

Hauge, C. W., and Carlson, C. J., evaporation by submerged combustion. III. Sodium sulphate decahydrate, B.,

Layman, J. H., and Armbruster, F. R., ammoniation of sulphite waste liquor, B., 689.

and Morey, J. A., protective coating for wood in sodium sulphate, B., 149.

Kobel, M. See Neuberg, C. Kober, H., and Dittmar, F., variation of flocculation threshold in starch sols, A., 28.

Kober, S., sexual hormones in domestic animals, A., 389. Excretion of cestrin by kidneys of the pregnant mare, A., 503.

See also De Fremery, P.

Kobilskaja, M. V. See Moldavski, B. L. Koblianski, A. G., application of the systems water-ethyl alcohol-potassium carbonate and -ammonium sulphate to rapid detection of certain anions, A., 442.

Koblianski, G. G., and Ivanova, E. I., characteristics of various stages of the transformation of commercial butadiene into its polymeride in presence of metallic sodium pasted on rods, B., 848.

Koblitz, W., and Wittmeyer, H., preparation

of rubrene, A., 1102.

Kobosev, N. I., mechanism of arresting action of promoter on reduction of the iron ammonia catalyst, A., 1471.

Jerofejev, B. V., and Savina, V. M., hydrogenation of aluminium nitride by active hydrogen, A., 1217.

Kasarnovski, J. S., and Kaschtanov, L. I., explosive oxidation of methane, A., 1209. Preparation of hydrogen and hydrogen-nitrogen mixture by explosive oxidation of methane, B.,

Vassiliev, S. S., and Kasarnovski, J. S.thermodynamics of endothermic processes of nitrogen fixation, A., 1462. See also Dubrovskaja, A., Eremin, E. N.,

Goldfeld, J., and Vassiliev, S. S.

Kobrin, M. See Jonass, A. Kobs, H. See Pfeiffer, T. Kocay, W. See Krause, A.

Koch, A., and Zombory, L. von. spherosiderite and siderite from Felsőbánya,

A., 958. Koch, A. L. See Du Pont de Nemours & Co., E. I.

Koch, C., percolation and percolators, B.,

Koch, Erich, and Rovo Akt.-Ges., electric glow-discharge vessel, (P.), B., 605. Koch, Ernst. See Wagner, C. Koch, E. M., and Koch, F. C., fraction-

ation studies on pro-vitamin-D, A.,

Koch, F. C. See Koch, E. M.

Koch, H., Pichler, H., and Kölbel, H., fatty acids formed in small quantities in the Fischer-Tropsch benzine synthesis, B., 6. See also Faerber, E.

Koch, H. E. See Hansen, F. A.

Koch, J., preparation and investigation of new alkali ion source, A., 1042. Ineidence of positive easium ions on a degassed tungsten surface, A., 1042. and Walcher, W., ion optical images with

electrical lenses, A., 4.

Koch, K., determination in series of the oxalic acid content of urine, A., 503. Koch, L., drugs from Bolivia, A., 1037.

Koch, R. See Stockhausen, F.

Koch, Richard, origin and avoidance of hardening and abrasion fissures, and of flaking of the hardened layer in casehardened materials, B., 888.

Koch, T., and Amer. Enka Corp., dressing [sizing] of artificial silk, (P.), B., 17.

Weeldenburg, J. G., and Amer. Enka Corp., artificial filaments [of reduced lustre], (P.), B., 927.

Koch, W. H., and Mathieson Alkali Works,

Inc., purification of caustic [alkali]

solutions, (P.), B., 592.

Koch-Rohrbach, F. von. cultivation and fertilisation of hops, B., 1116.

Kochakian, C. D., and Murlin, J. R., effect of male hormone on protein and energy metabolism of castrate dogs, A., 527.

Kochańska, L., and Bobrański, B., hydroxyquinoline-8-aldehyde, A., 1266. Kocher, N. S. See Eastman Kodak Co. Kochmann, M., and Kunz, H., action of

valerian and method of assay, A., 1022. Kocholaty, W., determination of residual carbon in biological fluids, A., 1308.

Kochs, and Siegel, G., ripening of tomatoes by ethylene gas, B., 217.

Kocian, V., protective action of "germanin " (Bayer 205) on coagulation of bloodproteins, A., 1285.

Kôcour, C., treatment of metal [with lubricant for wire-drawing], (P.), B.,

Kocsis, E. A., nickel ammine complexes. IV. Nickel hexammine and tetrammine compounds with water of crystallisation, A., 576. Examination in filtered ultra-violet light of ointments and similar preparations compounded according to Ph. Hg. IV., B., 619.

and Hegedüs, I., determination of total phosphorus in flour, B., 344.

and Vass, P., determination of saponification value of paprika oil in filtered ultra-violet light, B., 893.

Kodak Akt.-Ges., photographic sensitive elements, (P.), B., 525.

Kodak, Ltd., [resinous] vinyl derivatives, (P.), B., 110, 510. Articles from plastic materials, (P.), B., 206. Extraction of halogens from fluids, (P.), B.,

and Brooker, L. G. S., sensitisation of photographic emulsions and manufacture of dyes therefor, (P.), B., 45. [Polymethine] sensitising dyes and intermediates therefor, (P.), B., 56. Sensitisation of photographic emulsions, (P.), B., 125, 173*.

Brooker, L. G. S., and Keyes, G. II., preparation of derivatives of pyridine and quinoline, (P.), B., 1197.

Fordyce, C. R., and Salo, M., photographic stripping films, (P.), B., 813.

Staud, C.J., and Briggs, R.M., hardening of photographic gelatin emulsions and gelatin solutions, (P.), B., 717.

and Tuttle, F. E., [optical system for] printing of copies from lenticulated film bearing colour-component images, (P.), B., 668. Kodama, S., and Fujimura, K., catalytic reduction of carbon monoxide at ordinary pressures. VII. Influence of alkali content on the iron-copper catalyst, A., 1212.

Kodera, K., effect of inspiration of oxygen and of air rich in carbon dioxide or poor in oxygen on the energy level and intermediate carbohydrate metabolism. V. Changes in lactic acid resynthesis in nephrectomised animals, A., 631.

Kodicek, E., and Joachim, J., B-avitamin-

osis in rats, A., 118.
"Kodigen" Akt.-Ges. für Komprimierte Gase in Vaduz, and Burger, D., plant for production of carbon dioxide, (P.), B., 192.

Köhner, T. See Karrer, P. Köcher, E. See Bernhauer, K.

Köck, H., action of ionisation surfaces in electrical gas purification, B., 1103.

Koefoed, Hauberg, Marstrand, & Helweg A./S. Titan. See Nyrop, J. E.

Kögel, G., radiation sensitivity of "photo-dyn," A., 1413. Production of prints by dusting-on processes, (P.), B., 1133.

Kögl, F., vegetable growth-substances, A., 122, 1433.

Haagen-Smit, A. J., and Hulssen, C. J. van, plant growth-substances. XIX. Effect of unknown factors on response of Avena sativa, A., 1163.

and Hasselt, W. van, plant growth-substances. XXI. Isolation of bios-I (mesoinositol) from yeast, XXII. Occurrence of biotin in the animal organism, A., 1305, 1570.

and Tönnis, B., plant growth-substances. XX. Production of crystalline biotin from egg-yolk, A., 1305.

Kögler, F., automatic precision burettes, A., 697.

Köhle, H. See Reichel, L.

Koehler, A. E., Rapp, I., and Hill, E., nutritive value of lactose in man, A., 103.

Köhler, F. See Knhn, R. Köhler, G. See Druckrey, Köhler, H. See Heller, K. See Druckrey, H.

Köhler, Hilding, nucleus in and growth of hygroscopic droplets, A., 1198. Köhler, L. See Kuhn, R.

Köhler, W., formation of crystalline calcium silicate hydrate, A., 1079.

See also Steinkopf, II'.

Koehler, W. A., electroplating methods, B., 414.

and Burford, R. O., porosity tests for zine-coated iron and steel, B., 1156.

Koehler Manufacturing Co., gas-detecting apparatus, (P.), B., 283.

Koehn, C. J., jun., and Elvehjem, C. A., vitamin- B_2 and its relation to canine black tongue, A., 1567. See also Elvehjem, C. A.

Koehring, R. P. See Short, C. R.

Kölbel, H. See Fischer, F., and Koch, H. Koelenschmid, W. A. A. B. See Waterman, H. I.

Kölln, skin troubles from [contact with] solvents, B., 1237.

Kölnische Gummifädenfabrik vorm. F. Kohlstadt & Co., rubber threads, (P.), B., 161, 162, 338.

Koelsch, C. F., applications of the Rosenmund-von Braun nitrile synthesis, A., 1:2-Diketo-3-phenylhydrindene, A., 1255. Attempted synthesis of compounds containing the isoindene nucleus. A., 1255. periNaphthindene [phenalene] series. I. Condensation of β -naphthol with cinnamic acid, A., 1256. Benzosemiflavanthrene. I. Reduction, A., 1267.

Koelsch, F., industrial poisoning chemical substances, B., 1069. by

Koelsche, G. A., and Kendall, E. C., relation of adrenal cortical hormone to nitrogen metabolism in experimental hyperthyroidism, A., 526.

Koenig, \tilde{C} . J., use of syenite in semivitreous ware. I., B., 1152. [Glaze]

spit-out, B., 1153.

Koenig, E. W., analysis of felspar; determination of normalities of potassium bromate and sodium thiosulphate in the Knowles-Redmond volumetric procedure for determination of alumina, B., 1036.

König, F., influence of potash manuring on value and effect of farm fodders, B., 246. König, F. (Usine de Villers-St. Paul). See Marschalk, C.

König, Franz. See Anschütz, L.

Koenig, F. O., description of binary solutions, A., 419. Thermodynamic equilibrium in the gravitational field, A., 674.

König, H. See Buchwald, E.

Koenig, J. See I. G. Farbenind. König, P. See Klobusitzky, D. von. Koenig, Paul, and Müller, Wilhelm, efficacy

tests for tobacco-product preservatives, B., 620.

and Tabakforschungsinstitut für das deutsche Reich, cultivation of tobacco, (P.), B., 342.

Koenig, W., determination of fat content of milk, B., 471.

König, Wilhelm. See Siegle & Co.. Ges.m.b.H., G.

Königfeld, G. See Küntzel, A.

Koenigs, E., and Bueren, H., azo-dyes from quinolonemethides, A., 1266.

and Gurlt, H., phenylhydrazone of Nphenylaminochelidamie ester, A., 481.

Koepf, G. F., and Mezen, J. F., easily constructed electrical relay, A., 446.

Koepp & Co., Chemische Fabrik A .- G., R., transparent cellulose formate products, (P.), B., 785.

Koeppe, H., influence of muscular action on blood-sugar and -catalase, A., 1530. Köppen, R., crystallisation processes in

potassium chloride solutions, A., 1194. See also Graue, G., and Thiessen, P. A.

Körber, F., influence of carbon on the course of the reactions in steel-making processes. II. Influence of carbon in the acid open-hearth process. III. Importance of the carbon monoxide reaction in basic open-hearth practice, B., 457. Metallurgy of substances accompanying iron, B., 696. [with Oelsen, W.], influence of carbon on the course of the reactions in steel-

making processes. I. Course of earbon

elimination, B., 457.

and Pomp, A., influence of the shape of the test-piece, method of fixing, rate of testing, and type of machine used on the upper and lower yield points of steel, B., 597. Körner, F. See Keppeler, G.

Koerner, O., Pukall, K., and Salmang, H., combined water in clay substance, A., 50.

Körösy, F., orientation of molecules on surface of solids and liquids, A., 1053. Determination of krypton content of air, A., 1479.

Körperth, H. See Schmid, L.

Köster, A., determination of viscosity of colloidal systems with special reference to plastic masses, B., 1056.

Köster, E., dyeing of union fabrics, B., 831. Köster, Erwin. See Darapsky, A.

Köster, H. See Jusatz, H. J.

Köster, W., and Dannöhl, W., system copper-nickel-iron, A., 152. Hardening of gold-nickel alloys, B., 1158.

and Wolf, W., ternary system aluminium-magnesium-zinc; region aluminium-Al₂Mg₃Zn₃-MgZn₂-Zn, A., 1194.

Koets, P., colloid behaviour of polymeric carbohydrates: starch, cellulose, and glycogen, A., 795. and Schoofs, J., effect of denaturation on

colloidal behaviour of ovalbumin, A.,

Koetschau, R., absolute colour values of mineral oils and their determination with the Pulfrich photometer, B., 1077.

Köttgen, P., exchange reaction of basic slag with soils and permutit, B., 34.

Köttig, R. See Bernhauer, K. Kofler, A., microscopic investigation of alkaloids in ergot. I. Ergotamine and ergotaminine, A., 1527.

and Fischer, R., polymorphism of luminal, B., 75.

See also Fischer, R.

Kofman, L. S., pyrolysis of higher hydrocarbons of the condensate from manufacture of synthetic rubber from alcohol, to obtain butadiene and aromatic hydrocarbons, B., 535.

Kofranyi, E. See Waldschmidt-Leitz, E. Kogan, A. I., reaction of phthalic anhydride with glycerol, A., 1251.

and Schtipelman, S. D., determination of citric acid in presence of certain organic substances, A., 872.

Kogan, A. M. See Krause, V. P.

Kogan, I. M., and Kizber, A. I., reduction of nitrotolucne by solutions of alkali sulphides, B., 536.

Kohl, H., crystalline insulin. Standardisation by the " area activity " method, A., 1564.

Kohl, Hans, and Siemens & Halske Akt .-Ges., tools [grindstones and oilstones],

(P.), B., 371. Kohl, W. H., application of luminescent screens to glass surfaces, B., 332.

Kohlbach, D. See Prelog, V.

Kohler, D., ionic antagonism in phenomenon of imbibition, A., 767. Rôle of non-electrolytes in imbibition, A., 1145. Role of osmotic pressure in imbibition, A., 1202. Variations in imbibition caused by reciprocal displacement of fixed cations on dead tissues of Laminaria flexicaulis, A., 1569.

See also Lévy, J. Kohler, E. See Guerrant, N. B.

Kohler, E. P., and Larsen, R. G., unsaturated sulphur compounds. III. αβ-Unsaturated ketosulphones, A., 1381.

Tishler, M., and Potter, H., structure of metallic derivatives formed by adding Grignard reagents to unsaturated ketones, A., 335.

Westheimer, F. H., and Tishler, M., hydroxyfurans. I. 3-Hydroxy-2:4:5-

triphenylfuran, A., 479. and Woodward, D. W., hydroxyfurans. II. 3-Hydroxy-2:5-diphenylfuran, A.,

Kohler, G. O., Elvehjem, C. A., and Hart, E. B., goat's milk anæmia, A., 504. Modifications of the 2:2'-dipyridyl method for available iron, A., 536. Growth-stimulating properties of grass juice, A., 1017.

Kohler, M., electron theory in metals of any crystal form, A., 1329.

Kohlhardt, K., conversion of lignite tar into motor fuel by pressure and heat, B., 354.

Kohlrausch, K. W. F., Raman effect. L. Vibrational spectrum of benzene. LVIII. Raman spectra of organic substances; nitrogen compounds. I. Simple amines, A., 136, 1319. Raman spectra of benzene and its derivatives, A., 269. Raman effect and problems of constitution. IX. Stability of the aromatic C·X linking, A., 599.

Pongratz, A., and Stockmair, W., Raman effect. LIII. Nucleus - substituted

benzoyl chlorides, A., 137.

Reitz, A. W., and Stockmair, W., Raman effect. LV. cycloPentyl derivatives, A., 777.

and Seka, R., Raman effect and problems of constitution. X. Strain theory, A., 777.

Stockmair, W., Raman effect. and XLVIII. Nuclear-substituted ethyl benzoates. LIV. cycloHexyl derivatives and symmetry of cyclohexane and dioxan, A., 10, 547.

Stockmair, W., and Ypsilanti, (Gross-Prinz), Raman effect. LI. Benzene derivatives. IX., A., 137. and Ypsilanti, (Gross-Prinz), Raman effect. XLV. Raman spectrum of organic substances; poly-substituted benzenes. VII. LVI. Raman effect and free rotation. IV., A., 10, 777. Sec also Kahovec, L.

Kohlschütter, H. W., and Nitschmann, H., compact disperse ferric hydroxide, A., 1477.

and Siecke, II., compact disperse materials; action of hydrogen peroxide on ferric hydroxide, A., 167.

Kohman, \check{E} . F., and Sanborn, N. H., influence of sugar on corrosion of canned fruits, B., 760. Influence of acids on corrosion in prepared prunes, B., 760.

Kohman, G. T. See Bell Telephone Labs. Kohn, H. I., number of chlorophyll molecules acting as an absorbing unit in photosynthesis, A., 907.

Kohn, $M_{\cdot \cdot}$, iron-eyanogen compounds. VI. Action of oxalates on the blue ironcyanogen compounds, A., 60.

Kohn-Abrest, E., toxicological examination for arsenie, A., 396. Lead in muscle and skin of cattle showing saturnism, A., 1417. Rapid determination of certain gases or vapours in air, B., 46.

Kohorn, O. Sec under Kohorn & Co. Machinenfabr., O.

Kohorn & Co. Machinenfabrik, O., staple fibres from artificial filaments, (P.), B.,

Koibuchi, M. See Shibata, H.

Koike, K. See Imamura, Y.

Kojalovitsch, N. B. See Jakimov, P. A. Kojima, G., influence of annealing on quench-hardness and coercive force of tungsten magnet steel, B., 373.

Kojima, R., molecular compounds of acid anhydrides with amines, A., 977.

Kok, J. A., and Keesom, W. H., electronic heat capacities of platinum and of

copper, A., 1190.

Kok, J. A. F. [with Waal, C.], composition of food poor in heavy metals and its influence on rats, A., 1147.

Kokas, E. von, and Ludány, G. von, activation of villikinin, A., 518.

Kokemper, B., pasteurising and sterilising device, (P.), B., 1073.

Kokkoros, P., lattice constants and spacegroup of lievrite, A., 1450.

Kokoefer, A. See Maas, F. J.

Kokoski, F. J. See Willits, C. O.

Kolaczek, E., drying of yarn, (P.), B., 1035. Kolbach, P., and Simon, H., proteolytic activity of malt extracts and worts, B., 1064. Proteinase content of various malts, B., 1121. and Wilharm, G., determination of

coagulable nitrogen in wort and beer,

B., 565.

Koldaev, B. M., and Butkov, P., influence of denervation on carnosine content of muscles, A., 510.

See also Palladin, A. V.
Kolesnikov, D. G. See Rosenfeld, A. D.
Kolesnikova, N. I. See Schpolski, E. V.

Koliakova, G. E., and Krasnikova, N. S., velocity of diffusion of non-sulphited, sulphited, and bisulphited solutions of oak, pine, and sumae in hides used for preparing soles and in cow hides, B., 420.

See also Sokolov, S. I.

Kolibay, A., construction of water filters, B., 1070.

Kolitowska, J. H., preparation of hypophosphoric acid from PCI₃, A., 1079.

Kolke, F., drying and non-drying oils on phosphatiscd iron, B., 457. Paints and varnishes, B., 509. Pigments for primers, B., 893.

Kollath, R., photographic action of slow protons, A., 1216.

Kollath, IV., and Erhardt, A., oxidationreduction potential, action of fundin, and duration of life in Opisthorchis, in

vitro, A., 1548. Kolle, F., and Gloppe, K. E., new hesper-

idin, A., 970.

Koller, G., and Czerny, H. [with Locker, K., and Maas, W.], limonin, the bitter principle of orange kernels, A., 857.

and Hamburg, H., rhodoeladonie acid, A., 1260.

Koller, K., and Gálócsy, Z., blast furnaces and their operation, (P.), B., 601.

Koller, M. M., Miller, Maurice L., and Brassert & Co., H. A., treatment and purification of sewage, (P.), B., 718.

Kollstede, E. See Burr, A.

Kolmakov, B. P. See Zaprometov, B. G. Kolobelotzkaja, T. A. See Rutovski, B. N.

Kolodkina, L. See Netschaeva, N. Kolodny, L. See Joffe, J. S.

Kolodziejczyk, S. See Urbánski, T. Kolodziejska, Z., chemical determination of vitamin-C, A., 1304.

Kolonits, B. See Szelöczey, J. Kolosov, A. K., Weston normal cell as standard for the international volt, A., 445.

Kolotireva, A. F. See Kalmanovitseh, F. Kolpak, H., X-ray structure investigations on elastic tissue with special reference to extension and shrinkage, A., 17.

Kolpakov, A. See Bogaevski, G. Kolpakov, I., and Ginzburg, M. L., ash content of sunflower-seed oil cake,

B., 28.

and Pasmanik, M., effect of hydraulic pressure on oil content of press cake, B., 28.

Kolthoff, I. M., coprecipitation and afterprecipitation; ageing of precipitates, A., 677. Adsorption of electrolytes on crystal surfaces, A., 792. Adsorbent properties of barium sulphate, A., 1064. Indicators, A., 1081.

Kolthoff, I.M., and Lingane, J.J., potassium thiocyanate as a primary standard substance, Λ ., 42. Accuracy of titration of thioeyanate with mercuric mercury, A., 177. Adsorption of silver and iodide ions by freshly-precipitated silver iodide, A., 1334. Accuracy of the potentiometric iodide-silver titration, A., 1351.

and MacNevin, W. M., structural changes taking place during ageing of pre-IX. Mechanism of adcipitates. sorption of lead on aged barium sulphate. X. Distribution coefficient of lead between the surface of barium sulphate and solution; determination of specific surface of barium sulphate, A., 561, 791. Adsorption of barium salts by barium sulphate from solutions in 50% ethyl alcohol, A.,

and Moltzau, R., post-precipitation of zine sulphide with mercuric sulphide, A., 1194.

and Moskovitz, B., constitution of β -iron oxide monohydrate, A., 810.

and Rosenblum, C., structural changes taking place during ageing of pre-cipitates. V. Thermalageing of freshly-prepared lead sulphate. VI. Perfection and ageing of lead sulphate precipitated under various conditions. VII. Kinetics of distribution of thorium-B through fresh lead sulphate. VIII. Influence of agitation on ageing and speed of distribution of thorium-B, A., 284.

and Tomsicek, W. J., oxidation potential of the system potassium molyb-docyanide-potassium molybdicyanide, and effect of neutral salts on potential, A., 430.

See also Moltzau, R.

Koltipin, S. G. See Nikolaev, N. S. Kolupaev, P. G. See Graham, A. K. Komandin, A. V. See Rakovski, A. V.

Komar, A. P., theoretical and experimental Laue patterns from bent sodium chloride crystals, A., 552. Calculation of the Laue patterns from plastically bent crystals of NaCl, A., 1449.

Komarek, G., Chapman, W. J., and Komarek-Greaves & Co., solid fuel briquettes, (P.), B., 729. Komárek, K. See Prat, S.

Komarek-Greaves & Co. See Komarek,

Komarevski, V. I. See Ipatiev, V. N. Komarov, F., determination of lignin in wood with 72% sulphuric acid, B., 14.

and Filimonova, G., acetylation of lignin. I. and II., A., 81.

Komarov, P. See Ruhemann, M. Komarov, S. A., action of nitrogenous bases of gastric juice on blood-pressure, pancreatic secretion, and flow of bile, A., 1415.

Komarov, V. A. See Shukov, I. I. Komarovski, A. S., determination

vanadium in the field, A., 1222. and Nasarenko, V. A., detection of oxalate ion by decolorisation of indigotin solution, A., 823.

Komatsnbara, H., precious metals from nickel sulphide ores, B., 326.

Komet Kompagnie für Optik, Mechanik, & Electro-technik G.m.b.H., generation of air foam, (P.), B., 4. Fire-extinguishing foam, (P.), B., 80.

Kometani, M., durability of paper, B.,

Komissarenko, V. P., influence of different histolysates administered parenterally and orally on the effect of insulin, A., 1031.

See also Geness, S. G.

Komita, Y. See Ishikawa, Hitoshi. Komiyama, T. See Ando, K.

Komlos, D., paths, road surfaces, floorings, etc., (P.), B., 62.

Kommusar, H. See Kauko, Y. Komovski, G., and Maximov, A., X-ray investigation of the equilibrium diagrams of aluminium-lithium alloys and the structure of AlLi, A., 789.

Komp, W. H. W., and Clark, H. C., malaria in Panama with reference to control with atebrin and plasmoquin, A., 101.

Komppa, G., and Beckmann, S., norborneol and norbornylane, A., 475. endo-exo-Isomerism in alicyclic alcohols of borncol type. I., A., 729. Structural isomerides and stereo-isomerides of methyldicyclo - [1:2:2] - hoptanols and -heptanones. II., A., 981.

Hirn, T., Rohrmann, W., and Beckmann, S., synthesis of dicyclo-[1:2:3]-octanono and dicyclo-[1:2:3]-octane, A., 333.

and Klami, A., synthesis of dl-fenchone,

and Nyman, G. A., removal of water camphenilol, 4-methylcamfrom phenilol, and 4-methylborneol; santeno displacement and Nametkin transformation, A., 476. 4-Methylisosantenol and 4-methylsantenylamine, A., 729. Fenchene series. VI. Two homologous fenchenes; racemisation of hydrocarbons of the pentocean system, A., 993. True constitution of camphenilyl and 4methylcamphenilyl chloride and a stereoisomerie a-fenchocamphorol, A., 1258.

and Rohrmann, W., general reaction for preparation of keto-acids, unsaturated acids, and disubstituted lactones. II., A., 331.

Kon, G. A. R., and Ruzicka, F. C. J.,

polycyclic compounds related to sterols. V. Methoxy- and hydroxy-derivatives of phenanthrene, A., 465.

See also Askew, F. A. Kon, S. K., and Henry, K. M., comparison

of the vitamin-D contents of Guernsey and Shorthorn butter (milk), A., 766.

Kondak, M. A.; Vetscherski, P. A., Korenev, N. I., and Narbut, P. P., one-bodied evaporating plant with [beet-]juice evaporation in suspension, B., 211.

Kondi, A. See Foy, H.

Kondirev, N. V., and Berezovski, G. V., vapour pressure of saturated solutions and hydrates of magnesium chloride, A., 160.

Kondo, H., and Keimatsu, I., alkaloids of Sinomenium and Cocculus. XL. Alkaloids of Stephania cepharantha, Hayata. III., A., 491.

Suzuki, H., and Takeda, Kenichi, furylfuran and its derivatives. II., A., 1264. and Takeda, Kenichi, catalytic reduction

of 2-furylpropylearbinol, A., 1262. and Tomita, M., alkaloids of Sinomenium and Cocculus. XLV. Stereochemical and biogenetic relationships of biscoclaurine alkaloids, A., 491.

See also Späth, E.

Kondô, M., zinc container with drying device for storing incompletely dried rice, B., 615.

and Isshiki, S., storage of rice. XIV. Removal of moisture from air in a granary and hulled rice stored therein by a desiccating material, B., 664.

Kondo, Seiji, and Higuchi, M., effect of magnesia on synthesis of tricalcium silicate, A., 571.

and Kawashima, C., utilisation of cement dust. 11.—IV., B., 194, 499.

and Otomo, S., acid-resistance of porce-

lain body, B., 497.

and Yamauchi, T., inversion of quartz to tridymite. I. Natural tridymite. II. X-Ray distinction between tridymite and cristobalite. III. Effect of mineralisers on the inversion of quartz. IV. Influence of the amount of mineralisers on the inversion of quartz. V. X-Ray analysis of silica brick used for long periods in the open-hearth furnace, regenerator, or tank furnace, A., 145; B., 369.

and Yoshida, H., high-lime Portland cements. III. Chrome cement, B.,

498.

Kondo, Senju, pharmacology of aromatic sclenium compounds, A., 1148.

Kondo, Y., sensitive colour reaction of phenol with "fast-red salt B," and its use

as drop reaction, A., 1398.

Kondrashova, A. A. See Krassinski, N.

Kondratéev, V., induced chemiluminescence of mercury in the carbon monoxideoxygen flame, A., 138. Photochemical oxidation of nitrogen, A., 1214. Induced predissociation in kinetics of photochemical reactions, A., 1214. Exchange of wave energy in collisions of molecules, A., 1325. Spectrum of the cold flame of ether, A., 1443.

and Olsson, E., induced predissociation in absorption spectrum of sulphur,

A., 769.

and Siskin, M., extinction of fluorescence of sodium, A., 653.

See also Kondrateeva, E., and Kondrateeva, H.

Kondrateeva, E., and Kondrateev, V., induced pre-dissociation and energy exchange in nitric oxide, A., 1046.

Kondrateeva, H., and Kondrateev, V., flame of carbon monoxide and oxygen. I. Influence of pressure on the intensity of visible radiation from the flame, A., 1469.

Kone ja Silta o.y. Maskin och bro Aktiebolaget, arrangements in centrifugal separators for prevention of foam creation,

Konek, F., and Wettstein, E., separation and determination of organic acids in wine, B., 72.

Kongsted, A. J. H., gonadotropic hormone, (P.), B., 299.

and Kjems, H. L. P., recovery of hormones, (P.), B., 1234.

Konheim, H.S. See Albersheim, W.J. Konigsberg, M. See Wolfrom, M.L.

Konishi, K., and Tsuge, T., mineral matter of certain leguminous crops. I. Inorganic constituents of underground parts. II. Nodule formation and titanium supply, A., 650. Spectrographic determination of certain elements by the arc process, A., 695.

Konishi, Y., m.p. diagram of polycomponent systems. I.—IV., A., 1204.

Kono, M., and Maruyama, R., coccids produced in Japan. IX. Carbohydrates and waxy substances of Icerya purchasi, Mask, A., 1137.

Konobejevski, S. T., application of the quantum theory of metals to the phase equilibrium in alloys, A., 789.

Konopacka, B., histochemical studies of development of fish. I. Vitellogenesis in the gudgeon (Gobio fluviatilis) and the carp (Cyprinus carpio), A., 369.

Konopatzki, G. N., evaluation of harmful resinous properties of cellulose, B., 635.

Konopinski, E. J., and Uhlenbeck, G. E., higher-order derivatives in the interaction "Ansatz" of the Fermi theory, A., 1442.

Konopley, A. S. See Akim, L. E.

Konovalenko, P. S., extracting a mixture of willow and pine bark and their sulphitation in process of extraction, B., 420.

and Ginodman, G. M., tanning with improved and unimproved extracts from badan leaves, B., 420. Rhododendron leaves as tanning material, B., 420.

Konovalova, R., and Orékhov, A., harmine and harmaline series. I. N-Alkyl derivatives of harmine and harmaline, A., 1003. Senecio alkaloids. Degradation of platynecine to heliotridane, A., 1277.

Yunussov, S., and Orékhov, A., alkaloids of Papaver types. I. Alkaloids of P. armeniacum and P. orientale. Alkaloids of P. floribundum, A., 88, 217.

Konrad, W. See Schroth, W. Konschin, N. See Biber, V.

Konstantinova-Schlesinger, M., fluorescence method for determination of low concentrations of ozone, A., 1081.

Kontorovitch, J. E., influence of isothermal treatment on mechanical properties of nickel-chrome steels, B., 1156.

Konvisarov, D. V., plasticity of deformed metals, A., 415.

Konya, A. See Glaser, E. Koo, E. C., velocity distribution of fluids in pipes, B., 1183.

Kooijams, L. H. L., testing pipe coatings, B., 697.

Koolhaas, D. R., composition of paste rice [Oryza sativa, var. glutinosa], B., 471. Analysis of citronella oil, B., 667.

Koon, C. M. See Hisey, W. O.

Koontz, P. G., beryllium deuteride spectra, A., 8.

and Watson, W. W., barium hydride spectra in the infra-red, A., 136.

Koopmans, H., and Pieters, H. A. characteristic properties of coking coals, B., 433.

See also Hovers, T., and Pieters, H. A. J. Koopmans, R. G. See Jongmans, W. J. Kooy, R. See Heyl, J. G.

Kooymans, L. H. L., deacidification of H2O by marble and by calcined magnesite,

Kopaczewska, I., and Kopaczewski, W. multiplicity of flocculation zones and gelation of serum, A., 1010.

Kopaczewski, W., and Marczewski, S., spontaneous reversibility of the gelation of serum, A., 877.

Kopaczewski, W., enzyme activity and anion effects, A., 241. Serumproteins in cancer, A., 364. Gelation of serum-proteins in cancer, A., 751. Surface tension of milk, A., 749. Gelling of casein, B., 1231. Sce also Kopaczewska, I.

Kopelevitsch, G. V., Brodovitsch, A. I., and Hecht, I. R., desulphurisation of benzene, B., 6.

Kopelevitsch, T. Z. See Lurie, S. N.

Kopeliovitsch, E. L., and Troitzkaja, N. I., sorption of water vapour from air by means of silica gel, A., 792.

See also Charmandarian, M. O., and Feldman, J. C.

Koperina, A., balance of nicotine in smoking of tobacco in eigarettes, A., 108.

Kopfermann, H., hyperfine structure and isotopy, A., 1171.

and Krebs, K., hyperfine structure of platinum isotopes. III. Relative frequency of platinum isotopes from hyperfine structure of some Pt I lines, A., 1171.

and Krüger, Hubert, Paschen-Back effect in hyperfine structure of the easium resonance line à 8522 A, A., 1310.

and Rasmussen, E., hyperfine structure of vanadium multiplets, A., 397. Sec also Jaeckel, $(Fr\hat{l}.)$ B.

See also Kirschstein, B.

Kopp, G. See Täufel, K.Kopp, H., cylinder easting for air-cooled motors, with special reference to copper additions, B., 196.

Kopp, P., manufacture of rods and other elongated articles from artificial resin, (P.), B., 608. Production of moulded articles from artificial resin and artificial

resin-containing mixes, (P.), B., 753. Koppanyi, T. See Linegar, C. R. Koppejan, C. A., determination of f.p. of milk, B., 41.

Koppelmann, F., electric spark discharge in insulating liquids, A., 665.

Koppenhöfer, G. F., pathogenesis of silicotic tissue alterations. II. Morphological investigation of retention of quartz-dust in silicotic tissue. III. Nature of asbestosis particles, A., 1016. Morphological and chemical investigations in a case of death from acute benzene poisoning, A., 1554.

Kopper, II., critical temperatures of simple deuterium compounds, A., 557.

Koppers, H. See Koppers Co. of Delaware. Koppers Akt.-Ges., II., and Drehschmidt, $H_{\bullet \bullet}$, regenerators for coke ovens and other furnace installations, (P.), B., 721.

Koppers Co. of Delaware, and Becker, Joseph, coking retort ovens, (P.), B., 628, 967. Coke-oven gas by-product recovery, (P.), B., 730. Coke ovens, etc., (P.), B., 776.

and Blackwood, O. H., gas manufacture, (P.), B., 87.

Blackwood, O. H., and Shively, W. L., oil fog, (P.), B., 87.

and Bragg, G. A., treatment of gas, (P.), B., 8.

and Christianson, R., coking retort oven, (P.), B., 84.

and Denig, F., ammonium sulphate, (P.), B., 145.

and Eymann, C., removal of hydrogen sulphide from gases containing ammonia and hydrogen sulphide, (P.), B., 583.

and Fitz, W., recovery of salts from their solutions, (P.), B., 693.

Fulton, R. K., and Sperr, J. W., preparation of ammonium sulphate, (P.), B., 406.

and Hahn, C., direct cooling of producer gas, (P.), B., 628.

Koppers Co. of Delaware, and Hansen, C. J., apparatus for production of solid ammonium sulphate and diammonium phosphate, (P.), B., 18. Manufacture of diammonium phosphate from solutions containing [mono]ammonium phosphate, (P.), B., 987.

and Harlow, E. V., treatment of gas, (P.), B., 8. Extruded bituminous product, (P.), B., 309.

and Jacobson, D. L., gas purification, (P.), B., 8. Light oil removal [from gas], (P.), B., 260.

and Koppers, H., recovery of ammonium sulphate and sulphur from gases containing ammonia and hydrogen sulphide, (P.), B., 101.

and Leithäuser, H., coke oven, (P.), B., 84.

and Malkomes, W., zinc-distillation plant, (P.), B., 25.

and Powell, A. R., treatment of coke, (P.), B., 84.

and Ramsburg, C. J., sulphur prepar-

ation, (P.), B., 319.

and Sauchelli, V., composition for destruction of undesired vegetation, (P.), B., 613.

and Shively, W. L., oil-fog lubrication, (P.), B., 87

and Shoeld, M., purification and separation of gaseous mixtures, (P.), B., 260. Recovery of ammonia from [coal] gas by contact with acid phosphate, (P.), B., 485. Removal of ammonia from gases, (P.), B., 485. Fertilisers, (P.), B., 485. Treatment of fuel gas to remove ammonia, (P.), B., 628.

and Sperr, F. W., jun., fertilisers, (P.), B., 38. Ammonia compounds [ammonium sulphate], (P.), B., 318. product ammonia recovery, (P.), B., 485.

and Sperr, J. W., preparation of ammonia compounds, (P.), B., 406.

and Totzek, F., regenerative coke-oven battery, (P.), B., 84. Coke oven, (P.), B., 84, 308. Regenerative coke oven, (P.), B., 308.

and Van Ackeren, J., coking retort ovens, (P.), B., 437, 628, 776.

Koppers Ges.m.b.H., H., horizontal chamber coke ovens for production of gas and coke, (P.), B., 259. Heat treatment of gaseous and vapour products arising from distillation of bituminous fuols, (P.), B., 582.

See also Koppers Industrieele Maats., 11. Koppers Industrieele Maatschappi, II., and Koppers Ges.m.b.H., II., removal of hydrogen sulphide and other sulphur compounds from gases, especially coaldistillation gases, (P.), B., 485.

Kopsch, U. See Walker, W. O.

Koradimova, N. See Melli, G.

Korányi, A., and Bentsáth, A., hæmostatic effect of ascorbic acid in hæmaturia,

See also Armentano, L.

Kordes, E., rock-salt structure of Li₂TiO₃ and its formation of mixed crystals with MgO and Li₂Fc₂O₄, A., 415.

Koref, O. See Caroca, F.

Korenchevsky, V., biological properties of testosterone, A., 763.

and Dennison, M., assay of trans-dehydroandrosterone and its effects on male and female gonadectomised rats, A., 1157.

Korenchevsky, V., Dennison, M., and Browsin, I., assay and effect of testosterone on rats compared with those of other sexual hormones, A., 644.

Korenev, $N.\ A.$ See Agronomov, $E.\ A.$ Korenev, $N.\ I.$ See Kondak, $M.\ A.$

Korenman, I. M., qualitative reaction for bromates, A., 176. Micro-determination of acraldehyde, A., 456. Sensitive reaction for chlorates, bromates, and sulphites, A., 577. Micro-determination of chlorine, A., 693.

and Messonshnik, S. S., micro-reactions

of lead, A., 1221.

Korenov, N. I. See Kurnakov, N. S.

Korff, J. See Eilers, II. Korff, S. A., penetrating power of asymmetric component of cosmic radiation, A., 265.

Korinfski, A. A. See Kukuschkin, I. I. Korjuev, N., and Belussov, dissociation curves of blood-oxygen in anæmia and erythræmia, A., 1014.

Korman, S., and La Mer, V. K., deuterium exchange equilibria in solution and the quinhydrone electrode, A., 1202.

See also La Mer, V. K.

Kormann, F. A., Hirsch, W. F., and
Industrial Res. Labs., hard lining metal [cast iron], (P.), B., 1161.

Korn, F., preparation for exterminating grain weevils or other agricultural pests,

(P.), B., 423. Korn, W. See Mayrhofer, A.

Kornblum, M. See Saifer, A. Korneitsch, K. F. See Kiprianov, A. I.

Kornetzki, M., magnetostriction volume effect for nickel and magnetite, A., 145. Variation of volume magnetostriction and Weiss' factor with temperature and lattice constant, A., 276.

Kornfeld, G., new ultra-violet bands of SO₂ in emission, A., 1443.

and Müller-Skjold, F., mercury-vapour lamp with very intense resonance

radiation, A., 445.
Kornfeld, M., formation of nuclei in recrystallisation. II. Nature of incubation period, A., 552.
and Savizki, F., kinetics of recrystallis-

ation of tin, cadmium, and iron, A., 552.

Kornmann, J. See Deribas, D.

Kornmann, P., permeability studies of Valonia osmometers; behaviour with neutral salt solutions, A., 121.

Kornreich, E., determination of active chlorine in bleach liquors, B., 589.

Korobov, N. See Raichinstein, Z.

Korol, L. A. See Plotnikov, V. A. Korol, S. S., and Kalushskaja, V. M., determination of silica in presence of fluorine, A., 578.

Korolev, A., Bilik, I., and Tschuksanova, A., colloidal properties of naphthalenesul-phonic acid solutions. I., B., 440.

Korolev, A. V., deposits of the cupriferous sandstones of Naukat, and some other copper deposits in central Asia, A.,

Koroleva, M. V. See Rjabtzev, I. I. Korolkov, S. I. See Fleishman, L. E. Korovin, M. See Chmelnitzkaja, I. Korr, I. M., luciferin-oxyluciferin system,

A., 938.

Korsch, M. See Ivanovski, F.

Korsching, H. See Schüler, H. Korschujeff, P. A., influence of high temperatures on trypsin of warm- and coldblooded vertebrates, A., 1556.

Korsheniovski, G. A., universal expression for the limits of physicochemical re-

lations, A., 673.

Korshev, P. P., Frolova, P. A., and Rossinskaja, I. M., concentration of formaldehyde solutions, B., 10.

Korth, K., residual ray bands of LiF and MgO, A., 663.

Kortschemkin, F. I. See Martinov, M. F. Kortschemkin, L. I. See Volarovitsch, M. P.

Kortüm, G., optical behaviour of dissolved ions and its significance for structure of solutions of electrolytes. I. Influence of temperature and effect of salts on optical absorption of 2:4-di-nitrophenoxide ion. II. Optical rotation of phenylbenzylmethylpropylammonium ion. III. Optical absorption of sodium eosinate. IV. Range of validity of Lambert-Beer law in aqueous solutions of inorganic salts, A., 285, 425, 1066, 1197. Significance of van der Waals forces for properties of salt solutions, A., 793.

See also Almasy, F., and Halban, H. von. Korulev, A., and Rostovtzeva, E., [o- and p-derivatives of o-toluidine]2:6-diacet-

amidotoluene, A., 601.

Korvezee, A. E., determination of [radium] content of substances containing radium, A., 178.

Korzon, E. M. Sco Jatlov, V. S.

Kosaka, II., influence of thyroxine on hypoglycemic action of cholic acid, A.,

Kosaka, M., resorption in the lymph passage. I. Resorption of yatoconin by subcutaneous application. II. Resorption of colloidal silver. III. Resorption of starch, A., 98.

Kosaka, Y., fusibility of coal ash, B., 82. Toda, H., and Kitagawa, C., fusibility of coal ash. V. Relation between composition and fusibility of Japanese VI. Relation between coal ashes. fusibility and certain [other] characteristics of Japanese coal ashes, B., 354.

Kosbahn, T., single sparks and interrupted alternating-current arcs and their application to quantitative spectroscopic ana-

lysis, A., 582.

Koschara, W., adsorption analysis of aqueous solutions, A., 441. Uropterin, a yellow pigment from human urine, A., 882.

See also Ellinger, P.

Koschkin, M. L., ammonia dosage in ammonia-chlorine treatment of water, B., 126. Importance of ammonia for chlorine-fixing power of water. V. pH of water and pre-ammonisation, B., 574.

and Spector, E. M., importance of ammonia for chlorine-fixing power of water. VI. Chemistry of pre-ammonised water for chlorine-fixing power, B., 574.

Koschkin, N. V., preparation of NN'-disubstituted barbituric and thiobarbituric acids, A., 485.

and Tokarev, V. P., phloroglucinol and diphenylbarbituric acid methods for determination of furfuraldehyde, A., 620.

Koselev, V. See Valenta, E.

Koser, F. G., contents of glutathione and vitamin-C in antianæmic liver preparations, A., 360.

Koshantsehikov, I. V., insect metabolism at temperatures below 0°, A., 102.

Koshinjakov, P. A. Sco Tarasenkov, D. N.

Koshuchova, O. S. See Djatschkov, V. D., and Samochvalov, K. N.

Koshuchovski, A. A. Soo Kuznetzov, D. I., and Sergeev, A. P.

Koshuhkova, M. A., and Stoljarski, B. S., regeneration of cyanides [used in gold extraction], B., 65.

Kosieradski, K., offect of irradiation with short waves on enzymes. I. Diastase,

A., 1554.

Kosigin, A. I., geological characterisation of the Tschikischlyar oil-bearing district in Turkmenia, A., 309. Water of the mud volcanoes of Western Turkmenia, A., 957.

Kosirev, B. M. See Savojski, E. K. Koskowski, W. See Dadlez, J.

Koslov. See under Kozlov.

Koslovsky, M. T., and Penner, A. J., detection of small amounts of arsenic by electrolytic reduction, A., 695.

Kosman, A. J., and Lillie, R. S., photodynamically-induced oxygen consumption in muscle and nerve, A., 368. See also Lillie, R. S.

Kosmin, N. P., and Romanov, M. S., influence of low temperatures on damp grain, B., 902.

Kosolapov, G. F., and Bachmetev, E. F., X-ray determination of residual atomic lattico deformation in pressed duralumin, A., 1325.

and Trapeznikov, A. K., Röntgen analysis of β-phases of Cu-Be and Al-Zn alloys at high temperatures, A., 23. X-Ray determination of the thermal expansion coefficients of berylium and tin, A., 1454.

Kosolapov, Z. E. See Rapoport, I. Kosonogova, K. M., now process of photo-electrochemical development;

process, A., 688.

Kossel, W., distribution of X-ray reflexions from a crystal lattice, A., 552. Determinations with the complete reflexion system of a crystal lattice, A.,

Kossovitch, N. See De la Rivière, R. D. Kostenko, P. See Peissakovitsch, I. Koster, F. W., and Viscose Co., acetio acid recovery, (P.), B., 310.

Koster, H. Soe Bersin, T.

Kostina, E. A. See Bruns, B.

Kostomarov, M. I. Sco Kainarski, I. S. Kostov, D., mutual reactions between plant extracts and heteroplastic graft components, and their immunological and genetic significance, A., 1033.

Kostuilev, G. A. See Kroenig, V. O. Kosuigin. See under Kosigin.

Kosztelitz, O., properties and industrial application of catalysts, A., 571.

Kot, a, J. See Jilek, A.

Kotake, M., strychnine. VI. Alkali-fusion of strychninolone, strychninonic acid, and strychnine, A., 1003.

and Mitsuwa, T., structure of strychnine. III. Strychninolone and its derivatives,

A., 871.

Kotake, Y., Ichihara, K., and Nakata, H., intermediary metabolism of tryptophan. XXII. Difference between rats and mice in utilisation of tryptophan and its derivatives, A., 1544.

and Masayama, T. [with Itagaki, C.], intermediary metabolism of tryptophan. XVIII. Mechanism of kynurenine production from tryptophan. I., A., 1544.

Kotake, Y., jun., Nakata, H., and Fujikawa, F., protein with sulphur-containing amino-acids suitable for feeding experiments, A., 1543.

Kotecki, A., electrical discharge between rotating copper electrodes, A., 1040. Kotharl, D. S. See Gogate, D. V.

Kothavala, Z. R. Soe Sunawala, S. D. Kotin, C. M., and Losada, J., atomic scattering factor of zinc, A., 770.

Kotnis, M. S., and Rao, B. S., Indian essential oils. VII. Essential oil from flower heads and stalks of Cymbopogon polyneuros, Stapf., B., 252.

Koton, M. M. See Dolgov, B. N. Kotov, N. I. See Bachmetev, E. F. Kotov, V. See Kassatotschkin, V.

Kotscharov, F., histological examination: attempt to find method of vat-tanning

with pine, B., 420.
Kotscheschkov. See under Kozeschkov. Kotschmarev, A. T. See Levenson, V. E. Kotsovsky, D., ageing and reactivation in vitro. I. Ageing of gum arabic, A., 287.

Kottas, H. Sco Heinz, A.

Kotterba, M., smokeless hot air for drying, especially of ceramic wares, (P.), B., 255.

Kotwal, R. D. See Meldrum, A. N. Kotwani, G. S. See Dunnicliff, H. B.

Kotzmann, L. G., relation between physical properties and nature of adsorbed bases în soil, B., 291.

Kon, F. C. Sco Tang, T. H.

Kourakine, B. See Austerweil, G. Kovalenko, G. M., resistance to electric discharge in gas mixtures, A., 398.

Kovalevski, I. I., resistance of fibrous materials to light, B., 405. Surface phenomena in production of paper and cellulose. III. Application of a washing action and flotation phenomena in de-inzing of print wasto, B., 405. Removal of ink from paper, B., 587.

Kovalski, V. V., Bugaeva, M. M., and Glezina, O. M., oxidation-reduction processes in the inflammatory focus of the mucous membrane, A., 1550.

and Glezina, O. M., oxidation-reduction potential of muscle-tissue in vivo, in situ, and its functional variations, A., 1549.

Kovarik, A. F., and Adams, N. I., jun., disintegration constant of thorium and branching ratio of thorium-C, A., 1043. Kovda, V. A., types of alkali soils (solonetz),

B., 113.

Kovner, M., band spectrum of OH+, A., 1047.

Kovtun, K. See Vinokurov, S. Kowalczyk, E. Sco Dziewoński, K.

Koyama, R., lardacein from scale of the insect Ceroplastes rubens, Maskell, A., 360. Fats of Japanese birds. XVII. Fat from Oreocincla dauma, Holandro [White's ground thrush], A., 1534.

See also Ucno, S.

Koyanagi, H. See Tsujimoto, M. Koyanagi, K., setting and hardening of Portland coment, B., 193.

Koyano, T. See Horiuti, J.

Kozeschkov, K. A., and Nadj, M. M., o- and p-tolylstannic acids, A., 218.

and Nesmejanov, A. N., double salts of aryldiazonium chlorides with heavymetal chlorides, A., 837.

Nesmejanov, A. N., and Gipp, N. K., double salts of lead halides and benzenediazonium halides, and their decomposition, A., 837.

Kozeschkov, K.A., Nesmejanov, A.N., and Klimov, V. A., synthesis of organic tin compounds from diazo-compounds, A., 1004. .

Nesmejanov, A. N., and Pusireva, V. P., reactions of hexaethyldistannano and diethylstannano with organic mercury compounds as a method of preparing organic compounds of tin with substituents in the benzene nucleus, A., 1132.

See also Freidlina, R. C., and Nesme-

janov, A. N. Kozeschkov, M. K., [organic compounds of tin], A., 1528.

Kozima, K. Sco Mizushima, S. Kozlov, L. I. Sco Ivanov, K. N. Kozlov, M. A. Sce Ivanov, K. N.

Kozlov, N. S., Bogdanovskaja, R., and Sologub, I., etherates of aluminium chloride, A., 945.

and Fedoscev, P. N., catalytic condensation of acetylene with aromatic amines. I. Condensation of acetylene with anilino in presence of cuprous and cupric chlorides, A., 836.

Fedoseev, P. N., and Lazarev, V. S., synthesis of toluic acids, A., 983.

Fedoseev, P. N., and Olifson, L. E., action of alkalis on aromatic ketones, A., 852.

and Gimpelevitsch, E., vinylacetyleno derivatives. II., B., 847.

Kozlov, V. V., dye analysis. I. Analysis of quinonoid dyes by the titanium method. II. Analysis of quinonoid dyes by means of heteropoly-acids. III. Analysis of quinonoid dyes by means of permanganate titration, B., 311, 634.

and Voltson, T. I., active manganese dioxide from pyrolusite, B., 318. See also Voroscheov, N. N.

Kozlovskaja, A. V. See Batalin, V. S. Kozlowski, A., reaction of anthocyanins

with the sulphites, A., 997.
Kozlowski, W. Sce Smoleński, K.
Kozmina, G. Sce Usanovitch, M.

Kôzu, S., and Kani, K., viscosity measurements of the ternary system diopsidealbite-anorthito at high temperatures, A., 280.

and Takané, K., space-group and cell dimensions of enargite, A., 450.

and Watanabé, S., morphological studies of enargite, A., 450.

Kozu, T., determination of aluminium by means of aniline, A., 696. Separation of aluminium from manganese, nickel, cobalt, and zinc, A., 813.

Kozuirev, B. M. See Gerasimov, A. F. Kraak, H. H. See De Boer, J. H.

Krabbe, W., synthesis of isoquinoline deriv-

atives, A., 1124.

Kracek, F. C., solubility in the system KCNS-H₂O, A., 1194.

Kraeber, L. See Luyken, W.

Krämer, B., new Gorman technical development in use of low-grade fuels (pulverising and firing in one process), B.,

Kracmer, E. O. See Lansing, W. D.
Krämer, K. See Hieber, W., and Ott, E.
Krämer, O., and Haebler, T., electrode-position of chromium, (P.), B., 1000.

Kraemer, W., spectral analytical investigations, A., 176.

Krafft-Ebing, H. See Hecht, F. Kraft, D., determination of sediment in vegetable oils, B., 28.

8

Kraft, K., primary resin acids, A., 1259. See also Micheel, F.

Kraft, R. M., Robinson, Charles S., and Harris, S., effect of Treponema pallidum infection on metabolism of rabbit testis, A., 1143.

Kraft, W., and Lummus Co., dehydration of liquids, (P.), B., 722. See also Smoley, E. R.

Kraft-Phenix Cheese Corporation, concentrated milk constituents, (P.), B., 395*.

See also Schneider, E., and Seltzer, W. Krahl, M. E., and Clowes, G. H. A., influence of temperature on stimulation of oxidation by dinitro-, dihalo-, and trihalophenols, A., 1414.

Krainer, H., conditions for throughhardening of steel, B., 1097.

Krais, P., comparison of current standards of light-fastness in dyed textiles, B.,

Krajčinović, M., hamolytic control of removal of bitter substances from soya beans, B., 169.

Krakau, K. A., fusion diagram of the ternary system Na2SiO3-PbSiO3-PbO, A., 937.

Kral, H., tests with special refractory bricks in electric-furnace arches, B., 1153.

Krall, H. See Mehta, S.

Krall, H. G. See Birckenbach, L.

Krall, K., and Gupta, R. D., phenylthio-carbamides; triad N.C.S. I. Aniline thiocyanate, A., 198.

Kramer, B. See Sobel, A. E.

Kramer, G. A. See Shell Development Co. Kramer, K., and Sarre, H., diffusion of carbonic acid through the skin, A., 620. Arterialisation of blood. V. Possibility of influencing gaseous exchange between alveoli and blood, A., 1399. See also Gollwitzer-Meier, K.

Kramer, W., artificial crystal lattice for interference with optical light, A., 128.

Kramers, H. A. See Coenen, P. A. Krametz, E. See Dubský, J. V. Krámli, A. See Bruckner, V.

Kraner, H. M., Sehroeder, F. W., and Corhart Refractories Co., mould for casting basic refractories, (P.), B., 595.

Kranich, H., artificial fuel, (P.), B., 259. Kranig, J., absorption spectra of complex compounds of tervalent cobalt, A., 920. Krantz, H. See under Krantz Söhne, H.

Krantz, J. C., jun., Carr, C. J., and Beck, F. F., effect of sugar alcohols and their anhydrides on dissociation of boric acid, A., 1463.

Oakley, (Miss) M., and Carr, C. J., effect of sugar alcohols and their anhydrides on dissociation of boric acid, A., 289. See also Carr, C. J., Dozois, K. P., and Oakley, (Miss) M.
Krantz, W. See Krantz Söhne, H.

Krantz Söhne, H., finishing of materials, more particularly loosely woven or knitted planiform textile fabrics, in webform, (P.), B., 1149.

Kranz, W., gluten extensibility; method ef measurement and behaviour in wheat conditioning, B., 73. Occurrence of the wheat bug in the 1935 harvest, B., 164.

Krarup, N. B. See Hagedorn, H. C. Krasavin, S. F. See Alexeevski, E. V. Krasehennikov, F. N., photosynthesis of carbohydrates, A., 648.

Kraschennikova, V. M. See Anissimov,

S. B., and Platonov, M. S. Krasilnikov, N. S. See Soboliev, M. N.

Krasilschikov, B. E., activation of kiesel-guhr, B., 406. Rationalisation of control of beet sugar manufacture, B., 854.

Krasnikova, N. S. Seo Koliakova, G. E., and Zobina, E. A.

Krasnopolskaja, E. See Schischkln, V. Krasnova, V. S. See Bogoslovski, B. M. Krasny-Ergen, W., viscosity of suspensions and solutions. II. Theory of electroviscosity, A., 426.

Krasova, K. See Kishner, N.

Krasovski, K., utilisation of Novorossisk natural cement marl ("treskunui") for production of a binding material, B.,

Krassilchik, A., action of thiocyanogen on unsaturated hydrocarbons, A., 598. Aqueous alcoholic uranyl magnesium reagent, A., 1082.

Krassilchikov, A., sorption of gases and vapours by aerosol particles, A., 422.

Krassinski, N., Kondrashova, A. A., and Vinogradova, N. I., photoperiodism and changes in the enzymic system [of plants], A., 907.

Krassnoff, D. See Levaditi, C.

Krasushin, M. N. See Ginodman, G. M. Krasuski, K., action of ammonia on propylene oxide, and the synthesis of dimethylmorpholine, A., 972.

Kraszewski, W., and Lindenfeld, L., bloodcoagulation-accelerating properties of

maternal milk, A., 625.

and Weicówna, B., methyl β-m-nitrophenyl-β-hydroxyethyl and m-nitrostyryl ketones, A., 472.

Krasznai, I. See Binet, I.

Kratinov, A., physiological action of silage on digestive process of farm animals, A., 238. Treatment of straw with lime to increase its physiological value, B., 169.

Kratinova, E., nitrogen and phosphorus compounds of the muscles of thyroidectomised animals, A., 1138.

Kratky, A., [sintered] hard-metal alloys, (P.), B., 938.

Kratky, O., and Saito, G., viscosity of solutions of cellulose in cuprammonium, A., 28.

See also Go, Y., and Heller, W.

Kratz, E. J. See Aluminum Co. of America. Kratz, E. M., and Marbo Products Corp., forming carrier web [for transparent sheet material], (P.), B., 1203.

Kratz, G. D., and Briscoe, B., selective agent for mineral recovery, (P.), B.,

Kratz, H., jun. See Keefer, C. E. Kratz, L. See Bennewitz, K. Krauch, C. See Standard-I. G. Co.

Krauklis, A. See Lutz, O. Kraus, A., behaviour of [oil-modified glyptal] resins in nitrocellulose lacquers, B., 206. Detection of phthalic acid by means of the fluorescein reaction, B., 229. Properties of plasticisers for nitro-cellulose lacquers. V. VI. Vegetable oils, B., 336, 703. Nitrocellulose leather varnishes, B., 462. Use of nitrocellulose lacquers in the paper industry, B., 636. Plasticisers, B., 1006.

Krans, C. A., problem of electrolytic solutions, A., 288.

See also Geddes, J. A., Luder, W. F., and Mead, D.J.

Kraus, E. J., pathogenesis of galactorrhea: hormonal processes in physiological lactation, A., 883.

Kraus, F. See Haurowitz, F.

Krans, J. See Dirscherl, W. Kraus, K. See Wieland, H.

Kraus, O., crystal lattices of heteropolyacids and their salts. II. Constitution of silicotungstates of tervalent metals, A.,

Kraus, P. B. See Luder, W. F.
Kraus, R., instrument for automatic quantitative indication of hydrogen sulphide in the atmosphere, A., 811.

Kraus, W., condensation products of formaldchyde-urea type, (P.), B., 207.

and Amer. Cyanamid Co., plastic masses, (P.), B., 608. [Resinous] condensation products, (P.), B., 1110.

See also Soc. of Chem. Industry in Basle. Krause, A., hydroxide and oxyhydrate gels, and their amphoteric properties, A., 795. Ferric hydroxides, and ferrous and silver ferrites, A., 1080.

[with Kaniowska, D.], amorphous and crystalline oxide hydrates and oxides. XXVII. Catalytic decomposition of hydrogen peroxide and the "active positions" of amorphous ferric hydroxides and products of their ageing, A., 1212.

and Ernst, Z., amorphous and crystalline oxide hydrates and oxides. XXIV. Autoxidation and induction actions of ferrous hydroxide in presence of γ-FcO·OH, A., 691.

Ernst, Z., Gawrych, S., and Kocay, W., amorphous and crystalline oxide hydrates and oxides. XXVIII. X-Ray structure and catalytic properties of

silver ferrite, A., 1326. and Krzyżański, S., amorphous and

crystalline oxide hydrates and oxides. XXVI. Structure and catalytic properties of crystalline ferric hydroxides which give amorphous X-ray patterns,

and Szmidt, G., amorphous and crystalline oxide hydrate and oxides. XXV. Formation of ozone and hydrogen peroxide from metallic peroxide compounds formed by the oxidation of metallic salts and metallic oxides with

potassium persulphate, A., 686.

Krause, A. C., chemistry of vitreous humour. III. Lipins, A., 1534.

Krause, G. A. See Ges. f. Linde's Eismaschinen Akt.-Ges.

Krause, H., black, brown, and grey colouring of aluminium, B., 413. Colouring of metals with molybdate solutions, B., 842. Chemical coloration of zinc articles, B., 935.

Krause, M. See Collier, W. A.

Krause, M. E. See Lepkovsky, S. Krause, O., and Keetman, E., firing of

ceramic products. I., B., 192.

Krause, V. P., Kogan, A. M., and Polievktova, M. A., determination of piperylene by means of maleic anhydride, A., 702.

and Slobodin, J. M., preparation of hydrocarbons of the butadiene series

from alcohols, B., 970. Krause, W. E. See Gerstenberger, H. J. Krauskopf, K. B., and Rollefson, G. K.photochemical decomposition of oxalyl

chloride vapour, A., 573. Krauss, A., explosion tests with liquid

acetylene, B., 818.

Krauss, F. See Gross, P.

Krauss, G., cleansing of bottles, B., 884.

Krauss, Georg. See Fischer, Hans. Krauss, J. M. See Harrigan, H. R.

Krauss, V. P., and Amer. Kerament Corp., methods and compositions for producing a cold glaze having a dispersing agent therein, (P.), B., 992. Methods and compositions for producing a cold glaze on building materials, etc., (P.), B., 992.

Krauss, W., mechanism of reactions of nitric oxide with oxygen, chlorine, and bromine. II. Rate of formation and equilibrium of nitrosyl bromide, A., 294.

Krauss, W. E., and Bethke, R. M., increasing the vitamin-D potency of dairy

products, B., 216.

and Washburn, R. G., iron and copper content of milk throughout the season, as related to anæmia development in rats, A., 880.

See also Bethke, R. M.

Krausz, S. See Túry, P. Kraut, H. See Atzler, E., and Pantschenko-Jurewicz, W. von.

Kravetz, V. E., polymerisation of butadiene in presence of mixed catalysts, B., 229.

Kravtzov, G., anodic behaviour of organic salts of copper, A., 687.

Kraybill, H. R., Brewer, P. H., Gardner, M. W., and Perdue Res. Foundation,

purified virus, (P.), B., 954. and Shrewsbury, C. H., relative vitamin-A potency of carotene fed in butter fat and cottonseed oil, A., 1566.

Youden, W. J., and Sullivan, J. T., permanganate method of estimating reduced copper in determination of reducing sugars, B., 388.

See also Withrow, R. B.

Krayer, O., and Verney, E. B., reflex influence of the content of acetylcholine in the blood of the coronary veins, A., 222. Krezil, F., determination of the life of active

charcoal from its breakdown point, B., 5. Krebs, H. A., intermediate metabolism

of carbohydrates, A., 1412. See also Edson, N. L. Krebs, K. See Kopfermann, H.

Krebs Pigment & Color Corporation, carbon black, (P.), B., 485. [Organic]

pigments, (P.), B., 560.
See also Allen, E. R., Booze, J. E.,
Erskine, A. M., Feagley, C. C., Hanahan, M. L., Headley, A., Heekert, W. W., and Siegel, A.

Krefft, O. T. See I. G. Farbenind.

Kreide, R., and Roll, J., injection of solid and liquid materials in blast-furnace hearths, B., 1209. Kreider, L. C., and Evans, W. L., mechan-

ism of carbohydrate oxidation. XIX. Preparation of disaccharido antipodes. XX. Preparation of oligosaccharide acetates containing dihydroxyacetone constituents, A., 827, 1365.

Kreighbaum, H. S. See Hubacher, M. H.,
North, C. O., and Roberts, H. P.
Kreindel, A. L. See Sokolov, S. I.

Kreipe, H., obtaining a correct alcoholometer reading, B., 758. Relation between rate of access of air, oxygen and carbon dioxide content of waste gases, alcohol conversion, and evaporation losses in the Schüzenbach vinegar process, B., 1228.

Kreis, J. D., and Frantz, E. L., distillation

system, (P.), B., 962.

Kreisinger, H., value of coals as steaming fuel, as indicated by their chemical and physical properties, B., 913.

Ovitz, F. K., and Augustine, C. E., combustion in the fuel bed of handfired furnaces, B., 431.

Krejci-Graf, K., alterations of nitrogen content of organic substances during and after deposition, A., 1358.

Krekeler, K., precautions necessary in changing type of oil used in cutting and plastic deformation of metals, B.,

Kremann, R., investigation of binding properties of benzene by physical methods, A., 1324.

Kremenevski, N. V., absorption spectrum of lead vapour in the Schumann region, A., 2.

Kremens, A. I. See Raiziss, G. W.

Kremer, C. B., synthesis of 1-phonyl-4-βhydroxyothylpiperazine, A., 485. See also Thomas, A. W.

Kremer, F., ring formation in rotary cement kilns, B., 371.

Kremers, H. C. See Bartlett, P. G.

Kremnev, L., gelatinised emulsions. I. Emulsifying power of different soaps; thickness of [protective] layer; rôle of water, A., 158. Emulsification of mercury, A., 286.

and Papkova-Kvitzel, T., gelatinised emulsions. II. Influence of electrolytes on emulsifying power of alkali soaps, A., 1068.

Sco also Rabinerson, A.

Krempf, A., preservation and utilisation of fish products in the tropics, B.,

Kremser, L. See Gross, W.

Křepelka, J. H., and Svarc, V., extraction and detection of veronal and luminal, A., 1021.

Křepelka, V., and Blabolil, M., potentiometric measurements of transformation of the diazo- into the azo-group, A.,

Kreschkov, A. P.See Michailenko, J.J.

Kress, O., and Moss, L. A., pitch troubles in manufacture and use of sulphite pulp,

Krestinskaja, V. N., acclimitisation phenomenon in colloid-chemical processes, A., 287.

and Moltschanova, O. S., chemical activity of silicic acid, A., 1068.

Moltschanova, O. S., and Taranenko, I. I., coagulation of alkaline silicic acid sols by lead acetate, copper acetate, lead nitrate, copper sulphate, and ferric chloride solutions, A., 1201.

and Natanson, N. E., sensitising effect of small amounts of alkali on silicic

acid sol, A., 1338. Krestinski, V. N., and Kelbovskaja, M. K., acetylene series. VI. Oxidation of acetylenic hydrocarbons with perman-

ganate, A., 51. Kretovitsch, V. L., and Riazanceva, E. N., biochemical changes in wheat grain under high temperatures, A., 243.

Kretsch, E. I., detection of vanadium, A., 45, 813.

See also Budnikov, P. P.

Kretzschmann, F. See Fingerling, G. Kreuchen, K. H., measurements of small light intensities with counter tubes. II., A., 128.

Kreulen, D. J. W., determination of fusibility of coal ash in a reducing atmosphere, B., 817. Temperaturesensitivity of highly viscous mineral oils, B., \$67.

Kreuter, C. See Darapsky, .1.

Kreutz, S., luminescence of calcite (with special reference to the Polish deposits), Ā., 449.

Kreveld, A. van, and Ornstein, L. S., general photographic density law, A.,

Sec also Ornstein, L. S.

Kreyzi, R., resorption of salts by oats with special reference to ammonium salts and nitrate, B., 612.

Krick, A. E., control of drying [of wood], (P.), B., 149.

Krieger, K. A., and Lukens, H. S., ignition of silicic acid, A., 578.

Krieger, P., primary native silver ores at Batopilas, Mexico, and Bullard's Peak, New Mexico, A., 49. See also Balk, R.

Krijanovsky, A., influence of a hyperthermal sulphuretted radioactive environment on constituents of blood, A., 357.

Krijgsman, B. J., enzymes of trypanosomes, A., 1296.

Krijgsman, C. See Ornstein, L. S.

Krilov, K. I., electron diffraction in rubber films, A., 17. Krilova, M. I. See Joffe, J. S.

Krilova, N. N. See Smorodincev, I. A. Kringstad, H., ultra-violet light absorption of olive oil. II., B., 1105.

See also Lunde, G. Krischtofovitseh, A. N., Burei coal basin, B., 4.

Krisehtul, E. B. See Karshavin, V. A.

Krishen, R. See Singh, Balwant. Krishna, S., and Varma, B. S., active principle of Myrsine africana, Linn., A.,

Krishnamurti, S. G., spectrum of trebly-ionised iodine, A., 398. Spectrum of doubly-ionised antimony, A., 654. New terms in the are spectrum of tellurium, A., 1437.

Krishnan, K. S., and Banerjee, S., magnetic anisotropy and crystal structure of 1:2:5:6-dibenzanthracene, A., 17. Orthorhombic crystalline modification of 1:2:5:6-dibenzanthracene, A., 17. Magnecrystallic action. IV. Magnetic behaviour of paramagnetic ions in the S-state in

crystals, A., 1057. Krishnan, M. S., occurrence and distribution of stanrolite in Gangpur State, Bihar

and Orissa, A., 449.

Krishnan, R. S., molecular clustering in liquid fatty acids, A., 547. Scattering of light in optical glasses, A., 664. Dispersion of depolarisation of Rayleigh scattering. I. Fatty acids, A., 1180.

Krishnan, T. S. See Warth, F. J.

Kristofferson, O. H., hydrothermal experiments with lead and zinc minerals, A.,

Kritchevsky, W., removal of wool from

animal skins, (P.), B., 587.

Kritsehevski, I. L., and Meerson, I. S., synthesis of chemotherapeutic compounds. I. Synthetic "naganin" in the U.S.S.R., A., 249.

and Sternberg, E. J., synthesis of chemotherapeutic compounds. 11. Quinoline derivatives [for use] against malaria, A., 249.

Kritsehevski, I. R., and Kasarnovski, J. S., partial molal quantities in an infinitely dilute solution, A., 29. Thermodynamical calculations of solubilities of nitrogen and hydrogen in water at high pressures, A., 30.

Kritschevski, I. R., and Kasarnovski, J. S., solubility in liquids of gas mixtures under pressure. II. Thermodynamical calculation of solubility in water of a mixture of nitrogen and hydrogen

under pressure, A., 675.
Shavoronkov, N. M., and Aepelbaum, V. A., solubility of gas mixtures in liquids under pressure. I. Solubility in water of carbon dioxide from admixture with hydrogen at 20° and 30° and under total pressures up to 30 kg. per sq. cm., A., 281.

and Torotscheschnikov, N. S., thermodynamics of liquid-vapour equilibrium in system nitrogen-oxygen, A., 1069.

Kriutschkov, A. P. See Ognevski, A. F.
Kriutschkov, N. I., preparation of ammophos from phosphoric acid from Viatka flotational phosphorite, В.,

Krivonos, F. F., chlorination of benzene, A., 599.

Křiženecký, J., correlation between weight and composition of hen's egg, B., 616.

and Diakov, F. A., specific dynamic action and toxicity of synthetic alcohol and fermentation alcohol, A., 891.

Krob, E. See Pick, H.

Krockert, G., increased growth duo to prolonged peroral administration organic iodine, B., 428.

Kröger, C., alteration of properties of vanadium pentoxide brought about by

cold-working, A., 946. and Fingas, E., system alkali oxide-CaO-Al₂O₃-SiO₂-CO₂. ν. Stable equilibria in the system Na₂O-SiO₂-CO₂ and pressures of CO₂ in the reaction between K₂CO₃ and K₂SiO₃, A., 31. Equilibria in the system

Li₂O-SiO₂-CO₂, A., 1070. and Illner, K. W., system alkali oxide-CaO-Al₂O₃-SiO₂-CO₂. VI. Equilibria in the system CaO-SiO₂-CO₂,

A., 1465.

See also Neumann, B.

Kroeger, J. W., and Nieuwland, J. A., alkylacetylenes and their additive compounds. XVII. Synthesis of acetylenic ketones from acetylenic Grignard reagents, A., 1490.

Sowa, F. J., and Nieuwland, J. A., addition of acetyl chloride to alkyl-

acetylenes, A., 1363.

Kröhnke, F., reducibility of bromo-ketones by hydrogen bromide and consequences thereof, A., 592. Theory and practice of halogenation of active methyl and methylene groups, A., 851.

and Börner, E., enol-betaines. a-Ketoaldonitrones and a new preparation of a-ketoaldehydes,

and Timmler, H., disproportionation of sulphurous acid by hydrogen bromideacetic acid to sulphuric acid and sulphur, A., \$10.

Kröll, K., laws governing the drying of

solids, B., 1071.

Kröner, W., and Knoblich, G., purification of starch milk and manufacture of potato starch, B., 213, 517.

Kronert, J., electrophysical methods in analytical chemistry, A., 582

Kroenig, V. O., and Bobovnikov, N. D., corrosion of wrought aluminium alloys, B., 327.

Kroenig, V. O., and Kostuilev, G. A., corrosion of magnesium alloys. Corrosion of cast magnesium alloys. III. Influence of heat treatment on corrosion of cast magnesium alloys. IV. Corrosion of magnesium and electron in contact with other metals, B., 326.

Kroenig, W., and Pavlov, S., corrosion of magnesium containing manganese, B.,

See also Standard-I.G. Co.

Kroenig, W. O., and Uspenskaja, V. N., significance of negative difference effect,

Kroepelin, H., lyophilic colloids. Micelle composition, A., 1337.

and Vogel, E., action of atomic hydrogen on inorganic compounds, A., 1474.

Krogh, A. See Beecher, H. K., and Fenger-Eriksen, K.

Krogis, A., colorimetric determination of carotenoids by a modified potassium dichromate method, A., 1496.

Kroll, B. B. See Tschernoshukov, N. I. Kroll, W., ductile chromium, A., 173. Refining of metals by evaporation in high vacuum; chromium, aluminium, silicon, and beryllium, B., 199. Beryllium-iron alloys, B., 323. Workable rare metals, vanadium, thorium, and uranium, B., 502.

and Siemens & Halske A .- G., nickel

alloy, (P.), B., 416.

Krollpfeiffer, F., and Rosenberg, A., action of alkali metals on dialkylmalonic esters,

Kronasser, W. See Strezynski, G. J. Kronasser, W. R. See Aktieb. Separator-

Kronig, R. de L., neutrino theory of light. III., A., 7. Contribution of X-ray analysis to the question of electron terms in ionic lattices, A., 142. Superconductivity and other lowtemperature phenomena, A., Neutrino theory of radiation and the emission of β -rays, A., 403.

See also Jordan, P.

Kronjäger, W., dispersion of air, krypton, and xenon in short-wave ultra-violet,

Kronquest, A. L., Robison, S. C., and Continental Can Co., coating materials [for sealing cans], (P.), B., 894.

Kronsbein, J., electrodeposition of chromium for wear-resistance, B., 328.

and Neale, C. F., electroplating of metallic articles, (P.), B., 332. Kropanev, S. I. See Mitrofanov, S. I.

Kropp, W., and Winthrop Chem. Co., [medicinal] solutions of alkoxyphenols, (P.), B., 1234.

Kroschkin, A. A. See Afonski, I. F. Krotova, T. A. See Palladina, O. K.

Kroupa, A. See Franke, A. Kroupa, E. See Hecht, F.

763.

Kruber, O., phenols of anthracene oil, A., 329. 2-Hydroxyphenanthrene in coal tar, A., 466.

and Schade, W. [with Morneweg, W.], naphthalene homologues of coal tar,

A., 1101. Krügel, C., Dreyspring, C., and Görbing, J., mobilisation of soil phosphates by green manuring, B., 384, 1115.

Krüger, A., cellulose produced from aspen wood by the chlorine process, B., 230. Krueger, A. P., [sterile] antigen, (P.), B., Krneger, A. P., and Mundell, J. H., reactivation of thermally inactivated

bacteriophage, A., 1424. and Nichols, V. C., denaturation of staphylococcal proteins, A., 384.

Krüger, D., transparent foils from celluloso and cellulose derivatives, B., 141.

Krüger, Deodata, Büssem, W., and Tschirch, E., cuprous thiocyanate; formation of coloured cuprous thiocyanate precipitates, A., 1078.

and Roman, IV., acctylation of carbohydrates; catalytic acetylation of glucose with small amounts of por-

chlorie acid, A., 1234.

Krüger, E. See Gollwitzer-Meier, K. Krüger, F., continuation of vapour-pressure curve above the critical point, A., 279.

W., photo-electric and Kallenbach, sensitivity of palladium-silver alloys saturated with hydrogen, A., 779.

and Schulz, G., determination of the Volta effect for pure metals, A.,

and Zickermann, C., minimum potential for ozone formation by electron collision, A., 667.

Krüger, Hans. See Matossi, F.

Krüger, Hubert. Sec Kopfermann, H.

Krueger, Hugo, Howes, H. A., and Gay, H., effects of morphino and its derivatives on intestinal movements. IV. Dihydroψ-codeino and dihydroallo-ψ-codeine, A., 107.

Krueger, J. W. Soe Mosettig, E.

Krüger, W., Wimmer, G., and Lüdeeke, H., influence of nematodes on yield and composition of sugar beet in relation to manuring, B., 247.

Wimmer, G., and Ringleben, O., influence of light on development, sugar formation, and nutrient absorption of the sugar beet, B., 1116. Influence of light on growth, sugar formation, and nutriment absorption of sugar beet, B., 1223.

See also Spengler, O.

Krug, W. F., jun. See Du Pont de Nemours & Co., E. I.

Kruger, P. G., and Challacombe, C. N., hyperfine structure of Y II lines, A., 1310.

and Gilroy, (Miss) H. T., deep terms in the isoelectronic sequence VI to Cu vii, A., 1.

and Shoupp, W. E., ionisation potentials of Gov., As vi, So vii, Sb vi, and To vii, A., 2. See also Weissberg, S. G.

Kruh, O., aluminium, (P.), B., 1163.

Kruilov, A. A., comparison of methods of determining the resistance of refractory materials to slagging, B., 933. Kruilov, V. D. See Rakovski, E. V.

Kruithof, A. A., and Penning, F. M., determination of the Townsend ionisation coefficient a for pure argon, A., 917.

Krumbhaar, W., new European practices in varnish manufacture, B., 68. Phonolic resins, B., 943. Paint technology, B., 1005. Treatment of natural gums, (P.), B., 653.

and Beck, Koller & Co., siccatives, (P.), B., 1218.

See also Beck, Koller & Co.

Krumbbolz, G., preparation of wines from fruit and berries, B., 566.

Krumey, F. See Bauer, Erwin, and Schäffner, A.

Krumholz, P., objective microphotometry, A., 1223.

Pickholz, S., and Hamburg, II., objective determination of colour in worts and beers, B., 901.

Krupnova, A. V. Sce Batalin, V. S.
Krupp Akt.-Ges., F., sintering, roasting, and drying of ores, etc., (P.), B., 255. Apparatus for heating bulk material, (P.), B., 304, 479. Corrosion-resistant [iron] alloys, (P.), B., 553. Manufacture of clinker for production of cement, (P.), B., 934.

Sco also Blume, O.

Krupp Grusonwerk Akt.-Gcs., F., crushing of material in jaw breakers, (P.), B. 129. Separation of materials according to their sp. gr., (P.), B., 176. Jaw breaker, (P.), B., 479. Iron alloys of non-ferrous metals, (P.), B., 504. Preparation [separation] of dry medium and fine-grained mixtures, (P.), B., 722. Production of cements with the aid of blast-furnace slag, (P.), B., 1042. Cast-iron alloy for chill-casting, (P.), B., 1101.

See also Gerasch, E., and Resow, H.

Krupski, P. Seo Ustjanov, V.

Krus, A. See Eulenstein, F. Krusch, P., spathic seams of the Siegerland: their geological formation and economic

importance, B., 644. Kruse, H. D. See Day, H. G.

Krusman, E. P. See Kutzev, S. S.

Krustinsons, J., dissociation of ferrous carbonate, A., 30.

Kruta, V. See Mentl, S. Krutter, H. See Warren, B. E.

Kruyt, H. R., double layer in colloids, A., 795. Character of hydrophilic colloids; hydration, A., 795. Dynamics of colloidal sols, A., 1067. Seo also Gribnau, F. B.

Krynieki, A. See Ruff, A. Kryniska, H. P., flavone compounds of

Polygonum hydropiper, L., A., 1036. Krystof, J., durability of tin and zinc coatings under corrosion-fatigue require-

ments, B., 549.

Krzywanek, F. W., and Buss, W., physiology of digestion in ruminants. I. Acid and enzyme content of the abomasum of the sheep, A., 888.

Krzyżaniak, D. Soo Plazek, E.

Krzyżański, S., kinetics of displacement of silver from silver nitrate solutions by metallic lead, A., 34.

See also Krause, A.

Ksanda, C. J., and Barth, T. F. W., structure of dickite and other clay minerals, A., 50. Ku, C. T. See Tu, C. M.

Ku, O. See Igari, M.

Kubaschewski, O., diffusion of silver in glass, A., 281.

Kubelka, P., alkali nitrates, (P.), B.,

Kubelka, V., judging the method of tannage of [vegetable-tanned] sole leather from chemical analysis, B., 804.

and Němec, V., ageing of pancreatic bating materials [for hides and skins],

B., 339.

Němec, V., and Žuravlev, S., action of vegetable-tanned leather on iron. I. Effect of leather fats on iron, B.,

Kubikowski, P. See Verne, J.

Kubo, H., disc for phonographic recording, (P.), B., 604.

Kubo, M., dielectric constants of gases and vapours. IV. and V., A., 924, 1182.

Kubo, T. Sec Go, Y.

Kubota, B. See Hata, K., and Uenaka, M. Kubowitz, F., carbon monoxide-ferroglutathione, A., 194.

Kubtschinskaja, K. I. See Buschmakin,

Kucera, J. J., and Carpenter, D. C., catalytic chlorination of dioxan, A., 341.

Kucharenko, J. A., processes of sugar manufacture in the light of present conceptions of colloidal chemistry, B.,

Knchel, C. C., and Mitchell, M. L., effects of stimulation of the adrenal gland on its content of ascorbic acid, adrenaline, and glutathione, A., 762.

Kuckertz, H., testing of calcium-soap dispersing power of textile aids, B., 557.

See also Schwen, G.

Kuczarow, M., effect of heparin on permeability of erythrocytes to adrenaline, A., 354.

Kudaschevitsch, V. See Badilkes, S.

Kudo, K., Gyro vapour-phase cracking process, B., 865.

Kudra, O. K., cathode effect in electrolysis of cadmium salts, A., 566.

and Ivanov, K. N., oxidation processes

at the cathode, A., 1213.
See also Plotnikov, V. A.
Kudrjavtzev, N. A. See Lebedev, S. V.
Kudrjavzeva, M., determining pectin substances, B., 520.

Kudrjavzeva, V., investigation of Raman spectra by means of a photo-electric counter, A., 1223.

Kudszus, H. Sco Butenandt, A.

Küchler, L., and Patat, F., light-rearrangement of o-nitrobenzaldehyde, A., 1215. Photo-rearrangement of o-nitrobenzaldehyde to o nitrobenzoic acid, A., 1349.

Kühl, Hans, lime saturation in Portland cements, B., 498.

and Mann, A., hydrates of calcium silicate; theory of hardening of siliceous cements, B., 193.

Kühl, Hugo, milk casein and [wheat] gluten, B., 73. Proteins of bread cereals, B., 425. Determination of crude fibre, B., 569. Proof of identical origin of wheat flours, B., 663. Evaluation of German bread cereals, B., 903. Preservation of foods with ultra-violet rays, B.,

Kühle, O., extraction of magnesium, B., 1099.

Kühn, J. See Candea, C. Kühn, K. See Ehrhardt, K.

Kühn, R. Sec Leonhardt, J.

Kuehne, C. W., stable sodium hypochlorite, (P.), B., 592.

Kühner, O., cold spraying of aluminium, B., 375.

Külz, F. See Rosenmund, K. W.

Kuen, F. M., and Püringer, K., sensitising action of the leaf pigments, chlorophyll, carotene, and xanthophyll, A., 1284.

Küntzel, A., report of an International Commission of the I.V.L.I.C. on the bating problem 1934-1935, B., 162. Effect of mode of tannage on analytical data of [vegetable-tanned] sole leather, B., 1058.

and Boensel, H., theory of mineral tannage. V. Effect of chromium salts on the m.p. and mutarotation of gelatin, B., 1222.

Küntzel, A., and Riess, C., compound formed by basic chromium salts with hide substance, B., 754.

Riess, C., and Königfeld, G., formation of masked complexes in normal and basic solutions of chromium and aluminium salts, A., 40.

and Schaefer, A., ellagic acid deposits in [vegetable-tanned] sole leather, B.,

and Seitz, (Frl.) A., origin of "reticulin" in the hide, B., 1222.

Kuenzli, W. A., Ploeger, C. E., and Servel, Inc., filter, (P.), B., 816.

Küppers Metallwerke G.m.b.H. Sec Luschenowsky, A.

Kürschner, F., and Immenkamp, W., [alkaloid] determination in Semen sabadillæ and Acetum sabadillæ, B., 907.

Kürschner, K., combination of acetic acid in ginkgo wood (Ginkgo biloba), A., 258. Two disputed properties of nitrolignin, A., 477.

See also Ruziczka, IV.

Kürten, H. F. Sce Dyckerhoff, H. Kürti, N., Lainé, P., Rollin, B. V., and Simon, F., appearance of ferromagnetism in some paramagnetic salts at very low temperatures, A., 786. Installation at the Bellevue Electromagnetic Laboratory of apparatus for helium liquefaction and production of temperatures below 1° abs., by the magnetic method, A., 814.

Rollin, B. V., and Simon, F., preliminary experiments on temperature equilibria at very low temperatures, A., 673.

and Simon, F., experiments at very low temperatures obtained by the magnetic method. II. New superconductors, A., 19. Superconductivity and other low-temperature phenomena, A., 147.

Küspert, K. See Busch, M.

Küst, sexual hormones in domestic animals, A., 389.

Küster, A. See Eggert, John.

Küster, H., synthesis of formaldehyde from water-gas, B., 359. Reduction of carbon dioxide to methane by the use of iron catalysts at atmospheric pressure, B., 676. Reduction of carbon dioxide to higher hydrocarbons at atmospheric pressure with catalysts of the iron group, B., 727.

Küstner, H., and Arends, E., accuracy of determination of emission and absorption of monochromatic X-rays, A., 399.

Küstner, P., casein and blood-albumin glues, B., 209.

Kuettel, G. M., and Du Pont Viscoloid Co., polymerisation [of acrylic acid derivatives], (P.), B., 752.

Kuever, R. A., and Persodent Co., dentifrice, (P.), B., 1131.

Kufferath, A., comparative testing of protective coatings, B., 559. Production and use of chlorinated rubber, B., 1009. New surface test-method in service of corrosion prevention, B., 1099. Methods and apparatus for determination of $p_{\rm H}$ in the explosives industry, B., 1181. Kuffner, F. Sco Späth, E.

Kultner, R., production of plastic, coating, cement, or spatula [filling] materials, etc., (P.), B., 624.

Kngelmass, I. N., blood buffer values in mineral deficiency, A., 1408.

Kugler, O. E., ether-soluble lipin-phosphorus, lecithin, and kephalin distribution in development of the chick, A.,

Kujumzelis, T. G., liberation of electrons from solids by hard γ -rays, A., 1440. Kuhl, P. E. See Standard Oil Develop-

ment Co.

Kuhla, G. See Heller, K.

Kuhlberg, L., detection of thallium, A., 695. Detection of ferrieyanide ions in insoluble ferricyanides, Α., Benzidine reaction for chromium, A., 1222. Action of copper salts on benzidine in presence of halides and thiocyanates and a new sensitive test for copper, A., 1398.

Kuhlman, A. F. See Nevens, W. B. Kuhlman, A. H. See Gallup, W. D.

Kuhlmann, A. G., comparison of the hydrophilic character of flours by means of triangular diagrams, B., 390. Application of quantitative filtration analysis to bakery colloids. I., B.,

and Gerschson, A. I., control of fat extraction by means of interfacial tension measurements, with comparison of extraction procedures of Soxhlet and Kuhlmann, B., 1003.

and Golossova, O. N., peptisation of wheat starch, A., 1201. Application of quantitative filtration analysis to bakery colloids. 11., B., 471. Bound water in bread-making, B., 519.

Kuhlmann, A. M., and Electro Metallurg. Co., refining [iron or chromium boride] alloys, (P.), B., 330.

Kuhlmann, H., biological detection of continuously heated milk, B., 425.

Kuhn, A., and Schäfer, G., capillary distribution of plant constituents. Fluorescence of chlorophyll. III., A., 393: B., 812. Homeopathic preparations. X. Analysis of preparations containing coumaric acid derivatives. XI., B., 75, 1177. Horse-radish juice, B., 252.

Kuhn, H. See Jackson, D. A.

Kuhn, R., lactoflavin (vitamin- B_2), A.,

Badstübner, W., and Grundmann, C., aldehyde condensations with secondary amines (Knoevenagel reaction), A., 316.

and Boulanger, P., relations between reduction—oxidation potential and chemical constitution of flavins, A., 1127. Toxicity of flavins, A., 1149.

and Dansi, A., molecular transformation of N-glucosides, A., 1095.

and Grundmann, C., m.p. of polyenes, A., 278. Preparation of polyenes; synthesis of hexatriene-al-dicarboxylic acid and octatetracno-aθ-dicarboxylic acid, A., 1093. Decapentaene-ak-dicarboxylic acid, A., 1230.

Hausser, I., and Brydówna, W., dielectric properties and chemical constitution of phosphatides, A., 226.

Köhler, F., and Köhler, L., oxidation of the methyl group in the animal body, A., 1231.

and Lyman, J. C., redox potential of murexide, A., 1000.

and Rudy, H., growth-promoting action of flavinphosphoric acids, A., 646. Catalytic action of lactoflavin-5'-phosphoric acid; synthesis of the yellow ênzyme, A., 1418.

Kuhr, R., Rudy, H., and Weygand, F., synthesis of lactoflavin-5-phosphoric acid, A., 1000. Formation of a synthetic ferment from 6:7-dimethyl-9-l-araboflavin-5'-phosphoric acid, A., 1392.

and Vetter, H., thiochrome, A., 215. Isolation of nicotinamide from heart muscle, A., 227.

nd Wendt, Gerhard, synthesis of safranal, A., 986.

and Weygand, F., o- and p-nitrophenylhydroxylamine, A., 1373.

Kuhn, W., form and dielectric behaviour of thread-like molecules in solutions, A., 285. Optical rotation and circular dichroism, and absorption and refraction in solutions, A., 285. Absolute con-figuration of lactic acid; calculation of optical rotation, A., 454. Catalytic production of optically active substances and chemical necessity of a unidirectional course in biochemical processes, A., 586. Statistical molecular configuration and elastic properties of substances of high mol. wt., A., 785. Shape and properties of thread-like molecules in solution and in the clastic solid state, A., 1327. Relations between molecular size, statistical molecular structure, and elastic properties of highly-polymerised substances, A., 1337.

Kuhnert, W. A., removal of dissolved silica from natural alkaline brines, (P.), B.,

Kuhnke, A., influence of oxcessive applications of potash on yield and starch content of potatoes, and subsequent

effect on quality of the seed, B., 514.

Kujumzelis, T. G., Raman spectra of glasses, A., 137. Raman effect and structure of glasses. II., A., 922. Kuk, S. See Fodor, A.

Kuklinski, M. See Feist, K. Kukolev, G. V., evaluation and technological classification of quartzites, B.,

and Bron, V. A., determining coefficient of expansion of coke-oven silica brick, B., 276.

Kukuschkin, A. I. See Slavinski, M. P. Kukuschkin, I. I., and Korinfski, A. A., causes of spontaneous inflammation of red phosphorus prepared by the dry method, A., 575.

Kulberg, L., application of organic redox systems to analysis. I. and II., A., 176. Drop method for detection of cerium, A., 443. Detection of benzidine and tolidine present together, A., 744. Detection of traces of iron in mercury salts, B., 59. and Matveev, L., drop reaction for

hydrogen peroxide, A., 811. Kulehar, G. V. See Beerman, H. Kulenkanpff, H., transmission of ultraradiation through matter, A., 133. Kulesza, M. See Filipczyk, L.

Kuleszanka, Z. Sce Pienkowski, S. Kulev, L. P., nature of complexes of phenols with amines, A., 683. See also Tronov, B. V.

Kuligin, N. V. See Kissin, B. I. Kulikov, F. S. See De Kolosovski, N. A. Kulisitsch, S. von. See Goerig & Co. A.-G. Kulka, M. See Sandin, R. B. Kulkarni, B. S., and Jatkar, S. K. K., decolorising action of fuller's earth, B.,

Kulkarni, S. S. See Joshi, S. S.

Kull, H. See Emde, H.

Kullenberg, B., Stark effect with the helium line λ 4686, A., 1309.

Kumakura, S. See Kimura, Kintaro. Kumamura, S., influence of acid-base equilibrium on glycogen content of the liver, A., 370.

Kumanin, K. G. See Efremov, G. L.

Kumar, K. See Singh, B. N.
Kumaraswamy, O. N., and Manjunath, B. L., fixed oil from the seeds of Celastrus paniculatus, Willd., B., 1003.

Kume, T., saturation of non-volatile substances in aqueous solution, A., 1197.

Kumichel, W., and Trogus, C., determination of the specific weights of cellulose solutions; determination of specific weights of the double compounds of cellulose derivatives with organic solvents, A., 1337.
Kumon, T., B-avitaminosis and detoxic-

ation in rabbits, A., 528.

See also Tomita, M.

Kumpmann, E. See Wallmann, C. Kuna, M. See Levene, P. A.

Kunascheva, K. G., and Brunovski, B. K., influence of soil sand on determination of radium in plants, A., 258. See also Brunovski, B. K.

Kunc, J. See Standard Oil Development Co.

Kunde, M. M. See Larrain, A. R. Kunerth, B. L., Chitwood, I. M., and Pittman, M. S., utilisation of meat by human subjects. III. Nitrogen and phosphorus of beef heart, A., 103.

Kung, L. C., effect of salting on calcium

content of vegetables, B., 1066.
and Fang, W. Y., nitrogen metabolism of pre-school children, A., 237.

Kunin, T. I., substitution of sodium carbonate for potassium carbonate in preparation of ferroeyanide, B., 59.

See also Postnikov, V. F Kunisch, G. See Schulz, K. G.

Kunisho, K., combined action of quinine and pituitrin, histamine, and barium on the excised uterus and isolated urine bladder of the rabbit, A., 107.

Kunitz, M., and Northrop, J. H., isolation from beef pancreas of crystalline trypsinogen, trypsin, a trypsin in-inhibitor, and an inhibitor-trypsin compound, A., 1298.

Kunkel, P., and Loeb, L., effects of human anterior pituitary gland on sex organs and thyroid gland of the guinea-pig, A., 900.

Kunkler, R. E., spraying liquid metal to decrease corrosion, B., 1043.

Kunsman, C. II., and Nelson, R. A., disappearance of hydrogen in presence of positive ions, A., 4.

Kuntz, E. See Feist, K. Kuntziger, J., improvements of electric furnaces with crossed conduits, B., 747.

Kunz, A., stabilised hydrogen peroxide composition, (P.), B., 1039. Kunz, H. See Koehmann, M.

Kunz, J., colour phenomenon in "colloidal" potassium vapour, A., 769.

and Babcock, S. H., optical rotatory power of solutions in an electric field, A., 1447.

and McLean, Andrew, optical rotatory power of solutions in an electric field, A., 13.

Kunz, K., and Hoops, L., resin components of ammoniacum. II. Constitution of ammoresinol, A., 1385.

Kunz, R. See Karrer, P.

Kunze, $H_{\cdot \cdot}$, and Volk, $H_{\cdot \cdot}$, bile acids and their practical application in medicine, B., 812.

Kunze, W. C. See Berl, E.

Kunzl, V., K-series for aluminium, manganese, and sodium, A., 655. Absorption of X-rays in the anticathode of the ion tube at low voltage, A., 1438. and Slavik, J. B., valve for fine regulation of gas pressures and its application in ion [X-ray] tubes, A., 1482.

Sec also Dolejšek, V.

Kuper, J. B. H. See Harnwell, G. P. Kuppinger, W. C., and Filtros, Inc., filtering composition, (P.), B., 577.

Kuppuswamy, T. S. See Chakravarti, S. N.

Kuraishi, T. See Utagawa, I.

Kuraš, M. See Spacu, G.

Kurbatov, L. M., radioactivity of ferromanganese formations in seas and lakes of the U.S.S.R., A., 49. Age of ferromanganese concretions, A., 958.

See also Orlov, N. A.

Kurdjumov, G. See Gridnev, V.

Kurdjumov, P. N., effect of hydrolysates of casein and those from the intestine on the secretion of gastric glands, A., 1139.

Kurie, F. N. D., disintegration with emission of protons induced by

neutrons, A., 403.

Richardson, J. R., and Paxton, H. C., radiations emitted from artifically produced radioactivo substances. I. Upper limits and shapes of the β -ray spectra from several elements, A., 542. Sce also Richardson, J. R.

Kurihara, M. See Araki, T.

Kurischkin, P. M., changes in reductionoxidation potential of the cornea of eyes enucleated from cadavers; dependence on the length of time after enucleation and conditions of preservation, A., 1017.

Kuriyagawa, M. See Sugasawa, S. Kuriyan, K. I. See Hughes, E. D. Kurlin, M. V. See Tschernoshukov, N. I. Kurlina, A. M. See Tschernoshukov, N. I. Kurnakov, N. S., topology of diagrams of chemical equilibria, A., 936.

and Korenov, N. I., phase transformations in the solid state in ironchromium alloys, A., 1455.

Kurnossova, P. See Aschkinasi, M., and Finkelstein, V. A.
 Kuroda, (Miss) C., constitution of awobanin

and awobanol, the colouring matter of awobana and its co-pigment, A., 860.

and Wada, M., constitution of natural colouring matters, kuromanin, shisonin, and nasunin, A., 861.

Kuroda, K., water content of the blood of chicken during the course of development, A., 876.

See also Nakamura, H.

463.

Kuron, H., characterisation of forms of soil water by its influence on exchange reaction between soil and salts, B., 1059.

Kuronuma, T. See Iwase, E. Kurosawa, T., viscosity-Kurosawa, viscosity-temperature relation of Japanese petroleum oils.

II.—IV., B., 133, 178. Kurotehkiu, T. J. See Yen, A. C. H. Kursanov, D. N., and Kitschkina, A. S., derivatives of a\beta-diphenylethane, A.,

and Solodkov, P. A., action of aromatic nitro-compounds on magnesium aryl halides, A., 714.

Kursehakova, $G.\ V.\$ See Jakimov, $P.\ A.\$ Kursehev, $J.\$ See Kalabuchov, $N.\$ Kurtenacker, $A.,\$ and Matejka, $K.,\$ higher

polythionates. II., A., 1476. Kurth, F. J. See Internat. Anemostat

Holding Co. Kurtschatov, I. V., Latischev, G. D.,

Nemenov, L. M., and Selinov, I. P., artificial radioactivity induced by neutron bombardment, A., 659.

See also Arzimovitsch, L. A., Budnitzki, D., and Fomin, V.

Kurtz, A. C., and Luck, J. M., annelid muscle. I. Taurine in Audouinia spirabranchus, Moore, A., 96.

Kurtz, L. J., kinetics of formation of anode films on metals. II. Films of lead chloride on lead, A., 36.

and Samartzev, A. G., measurement of coefficient of diffusion of electrolytes, A., 678.

Kurtz, S. S., jun., Headington, C. E., and Zieber, B., solvent refining of lubricating oils with nitrobenzene; analytical methods, B., 355.

See also Perkins, I. M. Kurtzina, O. I. See Pickat, A. K.

Knrz, H., mol. wt. of stand oil, B., 379. Chemistry of linseed stand oils, B., 749. Stand-oil formation, B., 1215.

Kurz, W., "blue copper pyrites," A.,

Kurzen, F. See Stock, A.

Kurzhals, E. See Klein, H. G.

Kurzke, H., changes of emission potentials of metals near the m.p., A., 539. Normal cathode fall at the m.p. of bismuth, A., 548.

and Rottgardt, J., contact potential differences between single crystal surfaces of different orientations. I., A., 1050.

Kurzrok, R. See Cockrill, J. R., and Solomonica, B.

Kusaka, T. See Asahina, Y.

Kusch, P., band spectra of rubidium and of its combinations with other alkali metals, A., 397.

and Loomis, F. W., band system of casium, A., 398.

Kuschinsky, G., influence of temperature on secretion of thyrotropic hormone, A., 116.

and Tang-sü, influence of luteinising substance on function of the lipincontaining cells of ovaries, A., 117. Influence of luteinising substances on testes, A., 117.

Kuschkova, N. P. See Arbusov, A. E. Kuschljanski, N. E., hydrochemical study of River Tzna water, A., 957.

Kusin. See under Kuzin. Kusljik, B. R. See Volkov, M. I. Kusmin. See under Kuzmin.

Kusmina. See under Kuzmina.

Kusner, T. S., and Grinberg, F. L.,composition of oil of Mentha crispa, B., 219. Ukrainian

See also Kiprianov, A. I.

Kusov, A. B. See Buizov, B. V. Kuss, E., mechanism of decomposition of methyl alcohol, A., 1076.

Kustrja, B. D. See Vasilevski, V. V. Kusumoto, H., convulsants of the pierotoxin group, A., 1148.

Kutani, N. See Fujita, A. Kutcher, C. A., air cleaner and humidifier, (P.), B., 579. Gas-mixing apparatus, (P.), B., 579.

Kutchka, K. G. See Showers, L.

Kuthy, S. von, action of colloidal substances on crystallisation, with reference to the problem of stone formation, A., 99.

Kutscher, IV., and Wörner, A., urinary phosphatase. III., A., 521. Phosphatase of the prostate gland. II., A., 759.

and Wolbergs, H., phosphatase of the

prostate gland, A., 111. Kutschinski, P. K., and Kalmuikova, N. V., determination of small amounts of chromium in wrought iron with diphenylcarbazide, B., 744. Kutschment, M. L. See Burkser, E. S.

Kutsunai, Y., applications of the hand refractometer in sugar-cane research. IV. Use of the "punch-juice sampler" and hand refractometer in Formosa, B., 39.

Kuttner, C. See Tofaute, W. Kutz, A. See Puyal, J. Kutz, W. M. See Gen. Electric Co.

Kutzakov, F. M., autoclave melting of sulphur paste, B., 833.

Kutzelnigg, A., relations between luminescent power and lattice structure. I. Layered-lattice crystals, A., 664. Oxidation catalysis. III. General view, A., 806. Lecture experiments on inorganic and general chemistry,

A., 1482. and Wagner, W., oxidation catalysis. II. Chromium oxide as catalyst, A.,

Kutzev, S. S., and Krusman, E. P., obtaining sugar and magnesia, B., 854.

Kuusinen, J., definitions of diffusion constants, A., 22. Definition and correction of diffusion constants of gases, A., 22.

Kuusinen, T. See Toivonen, N. J.

Kuvaldina, L. See Taranenko, I.

Kuwada, S., and Fuwa, Y., saponins. XI. Sapogenin of the roots of Momordica cochinchinensis (Laur), Spreng, A., 731. and Matsukawa, Taizo, ursolic acid.

III. Acid from the leaves of Rhododendron hymenanthes, Makino, A., 1261. Kuwashima, Y. See Hosoya, S.

Kuwata, T., catalytic action of Japanese acid clay. I. Condensation of benzyl chloride and benzene, B., 138.

and Ishii, Y., wool fat. I. Separation of wool fatty acids. II. New carboxyacids of lano-fatty acid series: lanomyristic, lanopalmitic, lanostcaric, and lanoarachic acid, B., 1214.

and Kato, O., catalytic action of Japanese acid clay. II. Promotive action of Japanese acid clay on [the] catalytic action of mercuric sulphate [in the] condensation of acetylene and acetic acid, A., 807

See also Tanaka, Yoshio.

Kuzell, C. R., recovery of sulphur from

sulphide ores, (P.), B., 233.

Marston, J. R., Mooney, F. X., and
United Verde Copper Co., acid-proof [mortar] composition, (P.), B., 149.

and Phelps Dodge Corp., metallurgical [reverberatory] furnacc, (P.), B., 936.

See also Ralston, O. C.

Kuzin, A., catalytic action of monoses on formaldehyde condensation. Intermediate products of the reaction, A., 191. Catalytic action of monoses on the condensation of aldehydes. II. Synthesis of pentaerythritol, A., 703. Enolisation of sugars under the action of different bases, A., 826.

Kuzin, S. A., separation of alkali-metal chlorides, sulphates, and nitrates by flotation, B., 738.

Kuzjak, F. A. See Frolova, G. F. Kuzmenko, G. A. See Fialkov, J. A.

Kuzmick, J. N., Lange, J. A., and Raybestos-Manhattan, Inc., rubber-bonded abrasive products, (P.), B., 103. Moulded compositions for brake linings or similar articles, (P.), B., 1073.

Kuzmin, L. L., simultaneous production of sulphur and ammonium sulphate by decomposition of ammonium sulphites

under pressure, B., 639.

Kuzmin, S. See Kiesel, A.
Kuzmin, S. F. See Schwarz, P. A.
Kuzmin, V. A., and Fridman, S. G., reaction of aβ-dibromo-β-phenylethyl methyl ketone with azides, A., 1109. Azido-derivatives of acetylenic hydrocarbons, A., 1239.

and Zemlianski, N. I., reaction between phenyl aβ-dibromo-β-phenylethyl ket-one and azides, A., 334. Reaction between phenyl aβ-dibromo-β-m-nitrophenylethyl ketone and sodium azide, A., 334.

Kuzmina, L. I. See Mindlin, S. S. Kuzmina, N. A. See Lektorsky, I. N.

Kuzmina, O. O. See Gudtzov, N. T.

Kuzminich, I. N., calculation of Gay

Lussac towers and their rationalisation, B., 930.

Andreev, A. F., and Surkov, E. I., rationalisation of the Gay Lussac towers in the chamber process of sulphuric acid manufacture, B., 930.

Turchan, E. J., and Archipova, M. S., theory of the chamber process; mechanism and kinetics of oxidation of SO₂ by nitrogen dioxide in the gas

phase, A., 567. Kuznetzov, D. I., and Koshuchovski, A. A., solubility in the system ZnCl2-HCl-H2O at 25°, A., 798. Systems MCl₂-HCl-H₂O.

1I. System CdCl₂-HCl-H₂O, A., 1340.

Kuznetzov, M. D., computation of cir-

culation of nitrogen oxides in the contact oxidation of ammonia, B., 639.

Kuznetzov, S. G. Sco Joffe, J. S. Kuznetzov, V. I., apparatus for maintaining circulation of gases in laboratory apparatus, A., 446. Safety tube for preventing bumping of liquids supersaturated with gas, A., 446. Analysis of diphenylguanidine, B., 404. Detec-

tion of resorcinol in phenol, B., 440. and Aronovitsch, P. M., preparation of diphenylthiocarbamide, B., 181.

and Logunova, D. E., synthesis of

thiuram, B., 10.

Kuznetzova, M. Sce Vinokurov, S.

Kuznetzova, V. V. Sce Pletenev, S. A.

Kvapil, K., influence of liming on easilyassimilable potassium in soils, B., 209. Kvitnitski, A. B. See Budnikov, P. P.

Kwiatowski, H., choline esterase, A., 1556. Kwal, B., conversion of acetylene into motor fuel by catalytic hydrogenation; comparison with pyrogenic condensation, B., 6. Refining of lignite spirit, B., 677.

Kwei, C. T. See Hsü, T. Y.

Kwit, N. T., and Hatcher, R. A., excretion of drugs in milk, A., 501.

Kya, L. T., composition of vesical calculi,

A., 1286.

Kyer, J., Brooks, F. P., and Isaacs, R., physical and chemical properties of desiccated stomach, A., 1534.

Kylin, E., secretion of the pituitary, A.,

and Paulsen, F., isoelectric point of fibrinogen, A., 874.

Kyrides, L. P., and Monsanto Chem. Co., neutral cresylic acid ester of phthalic acid, (P.), B., 11. Chloro-sulphonated aromatic hydrocarbons, (P.), B., 360. Cellulose ester [plastic] compositions, (P.), B., 464.

Sce also Nat. Aniline & Chem. Co. Kyrning, S. See Euler, H. von.

Laan, P. A. van der, localisation of rotenone in derris root, A., 533.

Laar, J. See Biltz, W. Laar, J. J. van, [b.p. of elements], A., 557. Melting curve of a compound partly dissociated into its components, 673. Changes in thermal and calorimetric values along the two fusion curves of helium, A., 787. Position of λ-points of helium, A., 1454.

La Barre, J., rôle of duodenal hormones (secretin) in carbohydrate metabolism, A., 251.

See also Zunz, E.

Labat. See Denigès.

Labbé, H., and Donard, E., individuality of vegetable insulinoids and vitamin-B, A., 645.

Labenne, G. See Warembourg, H.

Labes, R., and Lu, F., solubility products of strychnine with various phenols (chemical constitution and biochemical action), A., 1282.

and Wedell, K_{\cdot} , reaction of quinino with various phenols, A., 1282.

Labò, A., detection of carbon monoxide, A., 1479.

Laboccetta, L., characteristic constants of the atomic sphere, A., 134.

Laboda, M. M., production of alumina at the Volchov aluminium plant, B., 232. Labré, H., and De Balsae, F. H., vitamin-Ein cacao embryo, A., 1568.

Labrie, A. Sco Risi, J. Labriola, R. See Zappi, E. V.

Labro, L. See Delépine, M.

Labruto, G., and Irrera, L., condensation of piperonal with hippuric acid. II., A., 605.

Laby, T. H., measurement of thermal conductivity of gases, A., 696.

Lacassagne, A., cestrogenic hormones and mammary adenocarcinoma of the mouse, A., 882.

Lacasse, V., and Coolen, E., apparatus for drying wood, (P.), B., 741.

Lacau, R., separation of a yellow oil in mixtures of tar and bitumen, B., 1027. Lacey, W. N. See Bertram, E. A., Ken-

nedy, E. R., and Sage, B. H.

Lachat, L. L., and Halvorson, H. A., determination of vitamin-D. III. Effect of calcification on growth and sex differences in white Leghorn chicks, A., 1430.

and Palmer, L. S., comparative rachitogenic property of oats and maize, A.,

See also Halvorson, H. Λ .

Lachelle, C. E., and Ehrenberg, H., determination of acidity [in fruit products], B., 760.

Lacher, J. R. See Kistiakowski, G. B.

Lack, S. W., machine for concentrating ores and amalgamating gold ores, (P.), B.,

Lacombe, P., and Chaudron, G., mechanism of decomposition of aluminium-magnesium solid solutions, A., 800.

Lacomble, A. E. See Shell Development

Lacoste, A., Aubertin, E., and Saric, R., offect of repeated injections of insulin on histological state of the endocrine pancreatic tissuo and its insulin content in the normal dog, A., 386.

See also Aubertin, E., and Saric, R. Lacourt, (Mlle.) A., analysis of S-methyl compounds by demethylation with hydrogen iodide, A., 744. Recent advances in microanalysis. I. and II., A., 1080, 1132.

Sco also Wuyts, H.

Lacroix, A., mineralogical composition of the volcanic rocks of Easter Island, A., 586. Composition of Easter Island lavas, A., 586. Volcanie rocks of Pitcairn Island, A., 586.

Lacroix, J. Sco Clarens, J.
Lacy, I. O. Sco Rudolfs, W.
Lacy, K. B., and Van Schaack Bros. Chem. Works, reaction of olefines with sulphuric acid, (P.), B., 88. Method for minimising polymerisation [in reaction between olefines and sulphuric acid],

(P.), B., 871. Lacy, P. B., Libby, E. F., Metz, R. V., and Industrial Chem. Sales Co., motal digester having a corrosion-resistant metal lining, (P.), B., 998.

Lacy-Hulbert, D., and Yamel, Ltd., soap,

(P.), B., 108. Ladd, E. C. See Henne, A. L.

Ladd, R. M., value of rate of reaction curves for baking powder, B., 903. Lade, T. A. Soo Besborodov, M. A.

Ladenburg, K., Folkers, K., and Major, R. T., synthesis of 3-hydroxy-2-ketocoumaran and p-hydroxymandelic acid, A., 1118.

Ladenburg, R., Roberts, R., and Sampson, M. B., neutrons from different sources, A., 1440.

Lämmerhirt, F., inflammation and $p_{\rm H}$ of blood, A., 224.

Laemmleiu, G. G., model of polymerised molecule of silicic acid in a melt, A., 926. Separation sequence of silicates from fluid magma, and their lattice energies,

Laer, J. A. van, physical properties of rayon and acetate yarns in relation to textilo manipulations, B., 364.

Laer, M. van, oxidation-reduction potential and its application to browing, B., 214.

Laer, P. H. van. See Keesom, W. H. La Falce, A. See Musatti, I. Lafferty, C. See Burdon, K. L.

Laffitte, P. See Breton, J.

LaForge, F. B., and Haller, H. L., constituents of pyrethrum flowers. V. and VI. Structure of pyrethrolone, A., 1381; B., 812.

See also Haller, H. L.

Lafrançaise. See Rangier, M. Lafuma, H., and Dubrisay, R., influence of bone glue on hydraulic binding media, B., 372.

Lagarde, J. See Durupt, A.

Lagassé, F. S., effect of applying nitrogen [fertilisers] at various times and in

various amounts to Yellow Transparent apple trees, B., 385.

Lagatu, H., and Maume, L., efficiency of animal manure in correcting inefficiency of potassium [fertilisers], as shown by leaf diagnosis, B., 115.

Lageman, R. T., and Slack, F. G., magnetooptical rotation and natural dispersion

in gases, A., 925.

Lagerev, S. P., synthesis of β-phenylbutyl alcohol, A., 67. Catalytic hydrogenation of ethyl cinnamato under pressure, A., 70.

Lagodsky, H. See Launoy, H.

Lagrula, J., error in photographic photometry, A., 171. Correction of errors due to heterogeneity of the blackening of the plate in photographic photometry, B., 717.

Lagsdin, J. B. See Wyckoff, R. W. G. Lagunov, L. L., radioactivity of rocks in the Far East and its influence on forests,

A., 186.

Lahr, E. L. See Riddle, O.

Lahr, K. von der. See "Ofag" Ofenbau A.-G.

Laidlaw, J. D., and Scottish Agricultural Industries, cooling or drying of lump or granular materials, (P.), B., 80.

Laidlaw, P. P., and Elford, W. J., new group of filterable organisms, A., 1029.

Lainé, P. See Kürti, N. Laine, T. See Virtanen, A. I.

Lair, W. B. See Gen. Electric Co.

Laird, E. R., and Franklin, D. A., Raman

spectrum of sodium nitrate, sodium acetate, and acetic acid, A., 9. See also Coon, E. M.

Laird, J. S., and Ford Motor Co., magnesium

chloride, (P.), B., 1092.

Laise, C. A., plastic metallic compositions and articles made therefrom, (P.), B., 1102. Wear-resisting metallic articles, (P.), B., 1102. Alloy compositions, (P.), B., 1102.

and Eisler Electric Corp., composite [nickel-iron lead-in] wire, (P.), B.,

and Haworth Securities Corp., radiating

apparatus, (P.), B., 460.

Laissus, J., comentation of iron and ferrous alloys by beryllium, B., 321. Protection of metal products against corrosion by special cementation. I. Experimental technique. II. Protection of iron and iron alloys. III. Experiments with copper, B., 375. Cementation of grey cast iron with beryllium, B., 1209.

Laist, F., and Anaconda Copper Mining Co., metallurgy; [recovery of copper and zinc from scrap brass], (P.), B.,

1047.

Lait, J. R. See Partridge, J. H.

Laithwaite, H., minerals for colouring glass and enamels, B., 496. See also Preston, E.

Lajos, S_{\cdot} , action of vitamin- B_{1} on carbohydrate metabolism, A., 646. See also Purjesz, B.

Lakeside Engineering Corporation. See Nordell, C. H.

Lakhani, M. P. See Prasad, M. Lakin, H. W. See Byers, H. G., and

Williams, K. T. Laktionova, N. Seo Bocharov, A. A. Lal, J. B., constituents of seeds of Blepharis edulis, Pers. I., A., 911. Colouring matter of the flowers of Lantana camera, Linn., A., 1166.

Lal, K. See Lal, P.

Lal, P., and Ganguly, P. B., [photo-chemical] reduction of ferric salts by organic acids, A., 1473.

and Lal, K., statistical theory of neutral

atoms, A., 404.
Laland, P., Klem, A., Strandell, B.,
Poulsson, L., and Schartum-Hansen, H., isolation of the anti-anamic principle of the liver, A., 1534.

Lalande, A., theoretical and experimental researches on unimolecular reactions,

A., 567.

See also Guéron, J.

La Lande, W. A., jun. See Lipkin, D. Lall, G., essential oil content of Rosha grass (Cymbopogon Martini, var. motia), B.,

Lallemand, A., application of electronic optics to photography, B., 1069.

Lallemand, S., and Lallemand, (Mmc.) S. toxicity of ethyl alcohol towards dried and germinating seeds, A., 258.

Lallemand, (Mme.) S. Seo Lallemand, S. Lamar, E. S., and Compton, K. T., potential drop and ionisation at mercury are

cathode, A., 4. Samson, E. W., and Compton, K. T., high-current ion sources for nuclear

investigations, A., 130.

Lamar, M. O., Hazel, W. M., and O'Leary, W. J., J. Lawrence Smith fusion [method], A., 43.

Lamb, A. B., and Ohl, E. N., heats of adsorption of gases and vapours on crystallogenetic adsorbents, A., 26.

Lamb, C. A., and Salter, R. M., response of wheat varieties to different [soil] fertility levels, B., 1115.

Lamb, I. D., and Smith, Sydney, glucosides of Strophanthus emini, A., 710.

Lamb, J., jun., availability of soil potassium, B., 114.

Lamb, J. H., and Lamb, M. L., grouping of Monilia by fermentation and precipitin reactions, A., 1421.

Lamb, M. C., sampling of sole-leather bends, B., 512.

and Chapman, W. E., chlorinated rubber in leather finishing, B., 163.

Lamb, M. L. See Lamb, J. H. Lambert, A., and Vinay, R., treatment of complex materials containing potassium salts, (P.), B., 1151.

Lambert, A. R., and Crowther, F., interrelation of factors controlling production of cotton under irrigation in the Sudan. II., B., 385.

Lambert, B., and Heaven, H. S., gas-solid equilibria. VI. Adsorption from binary gas mixtures by silica gel, A., 677. Lambert, B. V. See Gen. Electric Co.

Lambert, D. J., and Hearn, G., chlorinating

apparatus, (P.), B., 989.

Lambert, G., unsalted diet and pregnancy; chlorine contents of erythrocytes and plasma and their relationship to alkali reserve, A., 753.

Lambert, J. See Bach, D.

Lambert, J. D., oxidation of carbon. I.

and II., A., 434, 1471.

Lambert, J. E. See Cullen, W.

Lambert, P., and Le Comte, J., infra-red absorption spectra of anthracene hydrocarbons, A., 406. Recording grating spectrometer; application to absorption spectra of benzene derivatives in the region of 3000 cm.-1, A., 1179. Infra-red absorption spectra of anthracene hydrocarbons. II. Application to analysis of constituents of oils, B., 1191.

Lambertz, A., determination of thermal expansion of liquids when observation is hindered by the temperature bath, A.,

Lambillon, J. See Schockaert, J. A. Lambin, S. See Régnier, J.

Lambourne, J. See Georgi, C. D. V.

Lambrecht, H., and Jung, B., atmospheres of the fixed stars, A., 1356.

Lambrechts, A., spectrographic and biological study of phloridzin derivatives. I. Phloridzin hepta-acetate, A., 516. Diabetogenic action of some derivatives of phloridzin, A., 634, 737. Dephosphorylation processes during phloridzin diabetes in the dog, A., 891. Phloridzin and urinary excretion of phosphorus, A., 1020. Influence of phloridzin on renal phosphatase in vitro, A.,

See also Barac, G.

Lambret, O., Bizard, G., and Driessens, J., hyperglycæmia and augmentation of the undetermined carbohydrate of the plasma following experimental shock in the dog, A., 1530.

Driessens, J., and Malatray, H., diminution of the hyperpolypeptidæmia, secondary to cellular destruction, by insulin with or without glucose, A., 1565.

Lambrey, M., and Corbière, J., quantitative data on absorption spectrum of nitrogen peroxide, A., 405. Error in Schwarzschild's law observed with [photographic] plates in the ultra-violet, B., 396.

Lambris, G., rapid determination of hydrogen in solid and liquid fuels, B.,

LaMer, V. K., and Carpenter, E. L., thermodynamic properties of cadmium sulphate in aqueous alcohol, A., 68Î.

and Chittum, J. P., conductance of salts (potassium acetate) and the dissociation constant of acetic acid in deuter-

ium oxide, A., 1341.

and Kamner, M. E., energies and entropies of activation of reaction between bromoacetate and thiosulphate ions, A., 165. Influence of non-electrolytes on kinetics of reaction between bromoacetate and thiosulphato ions, A., 165.

and Korman, S., determination of acidity in heavy water mixtures, A.,

1080.

and Miller, Mary L., temperature dependence of energy of activation in de-aldolisation of diacetone alcohol, A., 165.

See also Hamill, W. H., and Korman,

Lamie, R. D. See Reed, H. S.

Lamla, E., retardation of neutrons by collision with protons, A., 658.

Lamm, O., characterisation of starch by dispersoid analysis, A., 1201.

and Polson, A., determination of diffusion constants of proteins by a refractometric method, A., 563.

La Monaco, S. See Cannavò, L.

Lamont, A. See Schnmacker, H. B., jun. Lamont, R. W. See Watson, Laidlaw &

Lamort, J., combustion process in heating of muffles, B., 580.

Lamort Fils, E. & M., paper pulp, (P.), B., 15.

Lampe, B., action of copper on yeast, B., 214. Using dried beet shavings for spirit manufacture, B., 1228.

and Deplanque, R., acceleration of determination of moisture in potato

flakes, B., 42.

Deplanque, R., and Roehrich, E., determination of pentosan in potato flakes, B., 1066. Determining the potential alcohol yield of potato flakes, B., 1122. Possibility of alcohol loss by the Hesse method of combating foaming [distillery] fermentations, B., 1228.

Lampe, G. See Tafel, V.

Lampe, H., temperature regulation of dry matter production in marine algae as a

plasmatic adjustment, A., 393.

Lampert, U. See Helferich, B. Lampitt, L. II., scientific aspects of prepar-

ation of food, B., 1125.
and Money, R. W., measurement of strength of dilute gelatin gels, B.,

and Rooke, H. S., citric acid in milk and its determination, B., 1229.

Lamprecht, E, clay content of brown-coal briquettes; its determination by a colour method and its effect on resistance of the briquettes to weathering, B., 724.

Lamson, P. D., Stoughton, R. W., and Bass, A. D., anthelmintic studies on hydroxyalkylbenzenes, VI. Alkyl poly-VII. Halogenated cyclic phenols. VIII. Phenolic ketones, phenols. ethers, and esters, and organic acids, A., 515.

See also Stoughton, R. W. Lamson, R. W. See MacKay, E. M. Lancaster Asphalt, Inc. See Robinson, T. Lancaster Processes, Inc., and Robinson, T., emulsions, (P.), B., 129, 304.

Lance, A. E. See Liquid Oxygen Explosives, Ltd.

Lancefield, S., moulds and food spoilage, B., 251. Testing water for the canning factory. I. and II., B., 478, 574. Tin containers for canning, B., 1016.

Lancien, A., and Pivoteau, M., colloidal

solutions, A., 934.

Landau, L., theory of anomalies in specific heats, A., 19. Theory of the accommodation coefficient, A., 552.

and Lifschitz, E., theory of dispersion of magnetic permeability in ferro-magnetic bodies, A., 18.

Landé, A., and Inglis, D. R., magnetie moment of the neutron, A., 266.

See also Inglis, D. R.

Lande, G. V. L. ran der, properties of processed soya, B., 568.

Lande, H., and Pollack, H., hyperglycemia and glycosuria associated with disease of the biliary tract, A., 230.

Landecker, M., and Amer. Cyanamid Co., compositions for plastic moulding, (P.), B., Ī11.

Lander, C. H., Fishenden, M., and Saunders, O. A., heat transmission, B., 767. See also Brocklebank, E. W., and Mitford, W. B.

Lander, P. E., and Narain, R., sugar cane in the Punjab. I., B., 516.

Landgraf, A. See Simon, Arthur.

Landingham, A. H. van, Henderson, H. O., and Bowling, G. A., composition of blood of dairy cattle. I. Effect of age and phosphorus intake on calcium and inorganic phosphorus content of whole blood of dairy heifers, A., 497.

Landis, E. M., Elsom, K. A., Bott, P. A., and Shiels, E., sodium chloride restriction and urea clearance in renal insufficiency, A., 1541.

Landis, J., and Burckhardt, H., importance of protein supply in pig-fattening, B., 1125. Evaluation of skim milk, B.,

Landis, $Q_{\cdot,\cdot}$ and Freilich, $J_{\cdot,\cdot}$ tost-dough mixer calibration, B., 216.

and Frey, C. N., enzymes of flour in relation to yeast fermentation, B.,

Landmann, H., configuration of the outer and inner surfaces of coke, B., 1137.

Landolt, A., vat dyeing, B., 928.

Landon, M., comparison between litmus and Taliani tests for measuring stability of nitrocotton, B., 764. See also Demougin, P.

Landon, R. H. See Harvey, R. B. Landowne, M., specific dynamic action of carbohydrate and of protein in human hypothyroidism after total ablation of the normal thyroid gland, A., 1543.

Lands, A. M., and Stoland, O. O., size and structure of the thyroid gland of the cat after administration of irradiated ergosterol, A., 530.

Landsberg, G., and Malischev, V. J., second-order lines in Raman spectra, A., 1445.

and Mandelstam, L., selective light scattering in mercury vapour, A., 547. Landshoff, R., quantum-mechanical calculation of the variation of lattice energy with lattice separation in the sodium chloride lattice, A., 1185.

Landsperský, J., scalded malt [Brühmalz], B., 565.

Landsteiner, K., and Jacobs, John, sensitisation of animals with simple chemical compounds, A., 372.

Landt, E., use of the electrical sodium lamp in saccharimetry, B., 118. Water determination [in sugar-factory products] by the "Exluan" method, B., 165. Viscosity of concentrated sucrose solutions. II., B., 469. Influence of inorganic salts on the rotatory power of sucrose, B., 711. Molecular refraction of sucrose, B., 1063.

Lane, A. C., differentiation in traps and ore deposition, A., 448.

Lane, C. B., and Hammer, B. W., bacteriology of cheese. II. Effect of Lactobacillus casei on nitrogenous decomposition and flavour development in Cheddar cheese made from pasteurised milk, B., 345.

Lane, C. T., magneto-resistance of bismuth films at low temperature, A., 18.

Lane, G. F., and Philadelphia Rubber Works Co., reclaimed rubber, (P.), B., 112.

Lane, I. J., volatile therms in coke, B., 531. Lane, R. E., lead burning: report on an "exhausted blow-pipe," B., 1158.

Lang, A. See Bierich, R.

Lang, A. G., stable, high-contrast mordant for hæmatoxylin staining, A., 1572. See also Colton, J. H.

Lang, F., determination of aromatics in commercial benzines, B., 435.

Lang, F. (Wien). See Pauli, W. Lang, Friedrich. See Ruggli, P.

Lang, H. See Bredig, G. Lang, Karl. See Busch, M.

Lang, Konrad, action of alkaline persulphate on amino-acids, A., 1138.

Lang, Konrad, and Stnber, B., identification of muscle-active adrenal cortex hormone, A., 643. Adrenal cortex. II. Factors diminishing blood-lipins, A., 643.

Lang, M., thermal conductivity law in moving media; derivation of a mole-cular kinetic theory of thermal con-ductivity with investigation of limits of the Fourier method, A., 21.

Lang, R., application of Andrews' iodine monochloride method to the iodine

bromido process, A., 1081.

and Gottlieb, S., oxidimetric determination of melybdenum. I. Vanadate method, A., 304.

Lang, R. J., spectrum of trobly ionised thorium, A., 538. F-Terms of Ce IV, A., 654. Spectrum of trebly ionised cerium, A., 1168.

Lang, W. A. See Stansfield, E. Lang, W. W., fistulous withers and pollevil: calcium therapy, A., 506. Common salt and other agents; uses in certain [pathological] conditions, A., 1406. Langan, D. D. See Moody, A. H.

Langbein, F., Berlin city sewerage, 1935,

B., 910.

Langbein-Pfanhanser-Werke Akt.-Ges., electroplating plant, (P.), B., 746. Langdon, S. C., and Curtis Lighting, Inc.,

metal-protected mirror, (P.), B., 276. Langdon-Brown, (Sir) W., integration of the endocrino system, A., 249.

Lange, E., and Martin, W., heats of solution of salts in heavy water, A., 1340. and Nagel, K., graphical representation of angle of wetting relations by the maximum bubble pressure method, A., 155. Metal-metal potential in e.m.f. of electro-chemical cells, A., 430. Separation of rare earths by chromatographic adsorption, A., 689. Significance of solubility product of very sparingly soluble salts, A., 1464.

Lange, F. Seo Delépine, M.

Lange, F. E. M., and Nord, F. F., cryolysis,

diffusion, and particle size. Il vestigations with myosin, A., 28. See also Endoh, C.

Lange, H., kinetics of transformation of austenite. IV. Magnetic investigations on carbon steels, B., 195.

Lange, J., physical characterisation of dissolved ions. II. F.p. and conductivity of very dilute aqueous solutions of alkali halides, A., 1336.

Lange, J. A. See Kuzmick, J. N. Lange, S. See Baerts, F. Lange, W. See Grimmer, W.

Langecker, H., fate [in the organism] of complexes of citric acid with salts of heavy metals, A., 1548.

Langeland, E. E., rubber-particle count in Hevea latex, B., 802.

Langenbeck, W., and Baehren, F., organic catalysts. XIII. Esterase models, A., 589. [Organic catalysts], A., 1471.

and Rhiem, H. C., organic catalysts. XI. Vulcanisation accelerators, B., 207. Action of disulphide accelerators of vulcanisation [of rubber], B., 944. and Triem, G., organic catalysts. XII.

Asymmetric main valency catalysis. I., A., 476. Langenberg, F. C. See Russell, N. F. S.

Langer, A. See Dubský, J. V. Langer, L. M., and Cox, R. T., directionally selective ion counter, A., 305.

See also Mitchell, A. C. G. Langer, T. See Pestemer, M. Langerman, A. See Rosenberg, J. E. Langeron, L., Paget, M., and Danes, A., action of post-pituitary extracts on

gastric secretion, A., 362. Langevin, A., and Biquard, P., electrification of B powder by tearing or friction,

in powder factories, B., 764.

Langkammerer, C. M. See Lauer, W. M. Langkau, A. W. See Maas, F. J.

Langley, W.D., and Evans, M., determination of creatinine with sodium 3:5-dinitrobenzoate, A., 1236.

and its bearing on accidental ignitions

Rosenbaum, M., and Rosenbaum, M. G., determination of creatine in urine,

See also Edwards, J. G.

Langlois, A., fire-extinguishing composition, (P.), B., 576.

Langlois, H. F., and Langlois, H. N., apparatus for clay-treating oils, (P.), B., 739.

Langlois, H. N. See Langlois, H. F.

Langmuir, D. B., contact potential measurements on tungsten films, A., 665.

Langmuir, I., and Blodgett, K. B., investigation of unimolecular films, A., 156. and Schaefer, V. J., composition of fatty acid films on water containing

calcium or barium salts, A., 423. and Taylor, John Bradshaw, heat con-

ductivity of tungsten and cooling effects of leads on filaments at low temperatures, A., 1059.

Langsdorf, W., devices for feeding powders, etc., into a mixer, (P.), B., 721. Devices for mixing powders, etc., (P.), B., 912.

Langseth, A., and Nielsen, J. R., Raman spectra of N₃-, NCS-, and CO₂, A., 1049.

See also Klit, A. Langstroth, G. O. See Foster, J. S.

Langton, H. M., flavour of butter, B., 73. Langwell, H. See Brit. Industrial Solvents. Lanin, N. P., and Matveev, G. P., effect of addition of cadmium salts to nickelplating baths on the properties of the nickel coating, B., 997.

Lankelma, H. P., and Vopicka, E., hydrolysis and thermal decomposition of mixed diacyl derivatives of 4-chloro-2aminothiophenol, A., 720.

Lanner, K. See Raudnitz, H.

Lannung, A., vapour pressure measurements of the system calcium chloridewater, A., 1069.

Lansac-Fatte, L. Sec Dervillée, P.

Lanshina, M. N. See Suchov, K. S. Lansing, W. D., and Kraemer, E. O., solvation and determination of mol. wt. by the Svedberg ultracentrifuge, A., 1199.

Lanthier, P., chemical products used as

fertilisers, (P.), B., 517.

Lantz, E. M., Smith, M. C., and Leverton, R. M., calcium and phosphorus metabolism of children with mottled enamel, A., 364.

See also Smith, M. C.

Lantz, L. A. See Calico Printers' Assoc., and Sunder, H.

Lantz, R., sulphonation of naphthalene. I. Determination of relative portions of naphthalene-1- and 2-sulphonic acids. II. Mechanism of monosulphonation, A., 62, 197.

Sco also Soc. Anon. des Mat. Col. & Prod. Chim. de St. Denis.

Lanxade, J. See Binet, L.

Lanza, A.J., epidemiology of lead poisoning, B., 397.

Lanzing, (Miss) J. C. See Schreinemakers, F. A. H.

Lapage, G., second coolysis of the infective larvæ of certain Trichostrongylidæ in solutions of sodium sulphide and of organic compounds containing sulphur, A., 889. Behaviour of sterilised exsheathed infective Trichostrongylid larvæ in sterile media resembling their environment in ovine hosts, A., 889.

La Piana, F. G. See Bosland, H. S.

Lapicque, L., rôle of acetylcholine in transmission of nervous stimulation in striated muscle, A., 1146.

See also Wajzer, J. Lapin, L. N., hydrogen peroxide reaction with diphenylcarbazide, A., 693.

Hein, W. O., and Sorin, A. P., determination of chromium and chromates in

waste water, B., 574. Lapina, R.A. See Preobrashenski, N.A.Laporta, M., reduction of 1-phospho-18tungstic acid by ascorbic acid, A., 255. Effect of veratrine and atropine on the tonus of skeletal muscle, A., 1295.

and Rinaldi, E., synthesis of ascorbic acid in the tissues in vitro, A., 254. Avitaminosis-C and pregnancy, A., 1304.

and Vacca, C., products of ultra-violet irradiation of follicular hormone, A., 1031.

Laporte, M., and Pierrejean, (Mlle.), fine structure of sudden luminous discharges obtained by discharging a condenser across a gas tube, A., 538. See also Chevallier, R.

Laporte, Ltd., B., and Weber, I. E., [platinum-coated] electrodes electrolytic process [manufacture of persulphates], (P.), B., 1051.

Weber, I. E., and Wood, W. S., stabilisation of hydrogen peroxide solutions, (P.), B., 319.

Lappen, J. J. See Spielman, L. A.

Lapponi, G. See Salvatori, A. Laptev, F. F., and Scharov, V. S., determination of ability of clays to absorb water, B., 234.

LaQue, F. L., cast ferrous alloys in the paper industry, B., 313. Corrosionresistance of metals in maize processing, B., 759.

See also Searle, H. E.

Laqueur, E., standardisation of sexstimulating substances: therapeutic efficiency, A., 252.

See also **Schweitzer**, H.

Lara, J. B., juice of green grapes in Mendoza wine-making, B., 566.

Lardé, R. See Hazard, R., and Lesné, E. Lardon, A. See Briner, E.

Large, D. K. See Finnemore, H.

Larian, M. G., and Mann, C. A., drying gel zeolites; effect on base-exchange capacity and hydration, B., 303. See also Mann, C. A.

Larin, N. P. See Tscherepney, A. A. Larin, P. S., discontinuous delignification of straw cellulose, B., 1034.

Larionov, J., absorption spectrum of tellurium dibromide vapour, A., 134. Absorption spectrum of tellurium dichloride vapour, A., 1047.

and Seidel, A., fluorescence of the salts of tervalent europium in aqueous solutions, A., 1320.

See also Filippov, A.

Larison, E. L., phosphatic material, (P.),

Larizza, P., residual nitrogen of the blood and its principal components. I. Normal distribution, A., 1530. See also Fieschi, A.

Lark-Horovitz, K., testing homogeneity of wood, B., 546.

Howe, J. D., and Purcell, E. M., thin films, A., 183.

and Miller, E. P., X-ray diffraction pattern of liquid and solid glycerol films, A., 1327.

Yearian, H. J., and Howe, J. D., intensity distribution in electron patterns, A., 1187. Origin of the "extra rings" in electron diffraction patterns, A., 1451.

Larmor, (Sir) J., surface layers of crystals, A., 668. Nature of viscid fluid threads, A., 1053.

Larmore, N. W., and Frederick, C. W., metal cement, (P.), B., 1154.

Larmour, R. K., and Bergsteinsson, H. N., experimental baking tests. III. Effect of various salts on gas production, B., 952.

See also Geddes, W. F., and Guest, G. II. Laroche, G., and Grigaut, A., cholesterol content of blood corpuscles, A., 1282.

Larocque, G. L., micro-beater [for pulp], B., 94. Extension of paper by adsorbed water vapour, B., 449.

and Maass, O., solubility of lime in water, A., 152. Sorption of lime by cellulose and wood, A., 423.

Larose, P., benzene rings, A., 975. Laroux, P. See Dufourt, A., and Fromageot, C.

Larrain, A. R., Roberts, R. G., and Kunde, M. M., formation of an adrenaline-like substance in autolysing adrenal glands, A., 1425.

Larralde. See Louis, R. Larsen, E. I. See Westinghouse Electric & Manufg. Co.

Larsen, E.S. See Bent, H.E.Larsen, K.J. See A./S. Dansk Svovlsyre- & Superphosphat Fabrik.

Larsen, L., bleaching and treatment of flour, B., 344.

Larsen, L. O. Seo Western Electric Co. Larsen, O. A., apparatus for use in con-

veying powdered or granular material pneumatically, (P.), B., 816. Larsen, P. Sco Müller, D.

Larsen, R. G. See Balsbangh, J. C., and Kohler, E. P.

Larsen, T., refraction and dispersion of deuterium, A., 924.

Larsen, V., Hald, J., and Eriksen, F., calcium silicates in medicinal use, B., 1177.

Larson, A. T. See Du Pont de Nemours & Co., E. I.

Larson, C., and Bacher, I., manurial value of calcium cyanamide, B., 611.

Larson, C. E. See Greenberg, D. M. Larson, E., depressor substances in pos-

terior lobe of the pituitary, A., 901. Larson, H. W. See Blatherwick, N. R. Larson, II. W. E., preparation and proper-

ties of mono-, di-, and tri-calcium phosphates, A., 39.

Larson, L. See Taylor, T. I.

Larson, L. H., and Vanderbilt Co., R. T., [paper-filling or -coating] composition of matter, etc., (P.), B., 540. Larson, L. J., and Smith Corp., A. O., aro

welding electrode, (P.), B., 844.

Larson, L. L. See Du Pont de Nemours & Co., E. I.

Larson, P. S., and Brewer, G., relation of the adrenal medulla to the effect of insulin on purine metabolism, A., 1302. See also Chaikoff, I. L.

Larson, T. E. See Buswell, A. M.

Larsson, J., Styri, H., and SKF Industries, Inc., alloy steels, (P.), B., 842.

Larsson, K. E., action of chlorophyll on mobilising effects of adrenalino with respect to sugar, A., 240.

Larsson, M., sodium sulphate, etc., (P.), B., 1151.

Larthe, N. Sco Sazerac, R.

Lasarev, V., calculation of linking energies, A., 411.

See also Goldfinger, P.

Lasausse, E., and Frocraiu, L., iodometric determination of iron in blood, A., 497. Colorimetric determination of copper in biological material, A., 536. See also Frocrain, L.

Lasch, A., Strömer, E., and Baker Perkins Co., shredding and mixing machine, (P.), B., 1072.

Laseh, F., vitamin-A metabolism and liver in experimental phosphorus poisoning, A., 903.

and Schönbrunner, E., enteral absorption of insulin, A., 525. External absorption of insulin; protection of insulin against trypsin, A., 1425.

Laschakov, L., reaction between sodium hydroxide and ferrosilicon, B., 641.

Laschkarev, V. E., distribution of electron density and potential in a crystal lattice from X-ray data, A., 552.

and Tschaban, A. S., calculation of potential distribution in certain crystal lattices, A., 552.

Láska. See Byčiehin.

Laskey, N. Sco Friedlander, M. Laskovskaja, J. N. Sco Smorodincev, I. A. Laskowski, M., presence of serum-vitellin in vertebrate blood, A., 746.

Lasky, S. G., hydrothermal leaching in the Virginia mining district, New Mexico, A., 1088.

Lasley, M., treatment of ceramic materials [clay or shale], (P.), B., 1041.

Lasnitzki, A., influence of cations on fermentation by tumour cells. VI. Calcium and magnesium. II., A., 1014. and Rosenthal, O., influence of cations

en fermentation by tumour cells. V. Calcium and magnesium. I., A., 243. Lass, E. W., [preventing terminal corrosion of] electric batteries, (P.), B., 27.

Lassberg, von, improving boiler practice by returning the stack gases, B., 127.

Lassettre, E. N. See Yost, D. M.

Lastovski, R. P. See Gerschzon, G. I.

Lastowiecki, A., crystal structure of Spanish graphite, A., 926.

Lasukov, J. See Geltzer, F.

Laszkiewicz, A., crystallography and structure of hexamethylenetetramine salicylate, A., 927.

Laszt, L., and Verzár, F., effect of iodoacetic acid and of adrenalectomy on fat transport, A., 1018. Chronic iodoacetic acid poisoning and its relation to the Gce-Herter disease, A., 1554. See also Verzár, F.

Latchem, W. E. See Garner, W. E. Latham, D. S. See Wooster, C. B. Lathe, F. E., new Canadian refractories and their applications, B., 739. See also Pitt, N. P.

Lathrop Investment Corporation. See Lockhart, N.J.

Latimer, H. L., and Watts, A. S., influence of drying treatment and biscuit-storage atmosphere on physical properties of a semi-porcelain body, B., 544.

Latimer, J. N., and Latimer-Goodwin

Chem. Co., arsenic acid, (P.), B., 145.

Latimer, W. M., constancy of nuclear bond energies, A., 920. See also Brown, O. L. I., and Libby,

W. F.Latimer-Goodwin Chemical Co. See Lati-

mer, J. N.Latinir-Vetulani, I., anoxybiosis of the

embryo of Rana fusca in different stages of development, A., 368. Latischev, G. D. See Arzimovitsch, L. A.,

Deisenroth-Missovski, M. J., and Kurtschatov, I. V.

La Tour, F. D., inversion of polymorphism in the series of normal saturated diacids, A., 928.

Lattorf, R., surfacing of floors, walls, roofs, and other structures, (P.), B., 597

Latz, J., interrelationships of weathering, soils, and manuring, B., 562.

Lau, E., intensity distribution of neon lines,

Lauber, H., and Merlau, O., hydrolysis of sulphite[-cellulose] waste lyes, B., 141.

Lauber, H. J., and Rocholl, H., action of vitamin-containing ointments on the healing of wounds, A., 1159.

Laucht, F., constitution of β -ergostenol, A., 201.

Laucius, J. F. See Marker, R. E. Laucks, I. F., and Laucks, Inc., I. F., laminated cellulose unit, (P.), B., 637.

See also Davidson, G.

Laucks, Inc., I. F. See Bowen, A. H., Davidson, G., Dike, T. W., and Laucks, I. F.

Laudenback, N. See Soljns, N. Laudenklos, H. See Stock, A.

Laue, M. von, theory of Kikuchi lines, A., 554. Experiments with models on theory of the Kikuchi lines, A., 554. External form of the crystal and its effect on interference phenomena of the space lattice, A., 668. Effect of a magnetic field on thermal conductivity and viscosity of paramagnetic gases. II., A., 931. Kikuchi envelopes, A., 1187.

London, F., and London, II., supercon-

ductivity, A., 148.

Lauenstein, C. F., and Link-Belt Co., [heat-]treatment of metal [cast iron], (P.), B., 795. Lauer, B. E. Soc Mann, C. A.

Lauer, K., influence of solvent on course of chemical reactions. VII. Spectra of aromatic hydrocarbons in solution, A., 834.

and Hinata, Y., constitution and reactivity. XVII. Action of hydrogen sulphates during sulphonation, A., 1256.

and Horio, M., influence of solvent on course of chemical reactions. I. Absorption spectrum of anthracene in various solvents, A., 300. Absorption spectra of hydroxyanthraquinones in different solvents, A., 1048.

and Irie, K., constitution and reactivity. XVI. Constitution of benzanthrone-6sulphonic acid; kinetics of the sulphonation of benzanthrone, A., 1381. Lauritzson, T. See Hellström, N.

Lauer, K., and Oda, R., constitution and reactivity. XV. Kinetics of nitration of aromatic compounds in sulphuric acid. XVIII. Condition of the individual positions in the molecule of nitrobenzene, A., 297, 1239. Influence of solvent on course of chemical reactions. II. Photochemical reaction, anthraceno ≥ dianthracene, in various solvents. III. Kinetics of bromination of anthracene in various solvents. IV. Changes in energy of activation and action constants in substitution reactions of organic compounds as effect of solvent. V. Stato of the benzene molecule in solution. VI. Bromination of aromatic compounds. VIII. Evidence of the ionoid course of substitution; formulation of aromatic hydrocarbons, A., 300, 713, 832, 834.

Lauer, L. M. See Nat. Aniline & Chem. Co. Lauer, W. M., and Filbert, W. F., rearrangement of phenyl allyl ethers. I. Phenyl pentenyl ethers, A., 1244.

and Hill, \hat{A} ., addition of sodium hydrogen sulphite to alkylene oxides, A., 1486. and Langkammerer, C. M., constitution of bisulphite additive compounds of aldehydes and ketones, A., 316.

Sprung, M. M., and Langkammerer, C. M., Piria reaction. III. Mechanism, A., 486.

and Ungnade, H. E., rearrangement of phenyl allyl ethers. II. Phenyl crotyl

ether, A., 1244.

Lauerson, F., and Voit, K., determination of carbon in biological fluids, A., 126.

Lauffer, II., effect of surface tension on flow from Poncelet apertures, A., 14. Lauffmann, R. See Stather, F.

Laug, E. P., and Nash, T. P., jun., variations in urinary reducing substances of two normal dogs maintained on bread diets, A., 99.

Laughlin, W. C., and Filtration Equipment Corp., treatment of sewage, (P.), B., 670.

Laugier, H. See Belluc, S. Laukel, A. K., waterproofing of plaster,

(P.), B., 104.

Laumont, P., culture of mustard in Algeria, B., 898.

Laun, D. D., are spectrum of tungsten, A., 1437.

Launoy, L., and Lagodsky, H., blood-iron in experimental Trypanosomu annamense infection in rabbits, A., 1027. Protein and urea in the blood of rabbits infected with Trypanosoma annumense, A., 1135.

Laupichler, F. G., [cconomics of] hydrogenation, B., 83. Apparatus for continuous laboratory experiments on hydrogenation of coal and oils, B., 580. Production of hydrogen by catalytic water-gas reaction, B., 788. Manufacturing costs of gases for ammonia synthesis, B., 883.

Laurance, B. M. Scc Vanselow, A. P. Laurent. See Louis, R.

Lauresco, C., proteolytic action of pancreatic juice, and of trypsin followed by crepsin, A., 759.

See also Terroine, E. F.

Lauritsen, C. C., and Crane, H. R., evidenco of an excited state in the a-particle, A., 401. and Oppenheimer, J. R., scattering of the

Th-C" γ rays, A., 264. See also Crane, H. R., Delsasso, L. A.,

Lauro, M. F., silver benzoate test [for olive oils], B., 379.

Lausberg, T., cuticular excretion of leaves, B., 386.

Laute, K., endurance impact tests on light metals, B., 1159.

Lauter, W. M., and Brann, H. A., bismuth salts of gluconic acid, A., 967. Preparation and toxicity of bismuth salts of camphoric acid esters, A., 992. and Wingfoot Corp., alkylenediamines,

(P.), B., 1142.

Lautié, R., normal reduced b.p., A., 149. Square root law of fluidity. I. Hydrocarbons, A., 150. Constant-level siphon, A., 446. Molecular volume of normal liquids, A., 550. General constant of van der Waals, A., 673. Critical relation and molecular association, A., 930. Parachor, A., 1325. Reduced volume at the b.p. and additivity, A., 1330. Lautsch, W. See Fischer, Hans.

L'Auxiliaire do l'Industrie, products adapted to improve the toxture of steel ingots, and, in particular, to reduce the piping, (P.), B., 1101.

Lava Crucible Co. of Pittsburgh. See South, F., jun.

Laval, J., discontinuous variation in diffusion of X-rays with the angle of diffusion, A., 15.

Lavergne, H. See Carnot, P. Lavergne, P. J., relationship between vitamin-A and plastids, A., 257.

Lavers, H. See Cullen, W.

Laves, F., crystal structure of boron carbide, A., 413. Over-structure phenomena in nickel-arsenic alloys, A., 676.

Löhberg, K., and Rahlfs, P., isomorphism of Mg₃Al₂ and a-manganese, A., 273. and Witte, H., the system Mg-Cu-Al, particularly across the section MgCu2-MgAl₂, A., 420. Crystal structure of MgNi₂ and its relations to tho types of MgCu₂ and MgZn₂, A., 926.

Lavine, I., and Feinstein, H., natural deposits of sodium sulphate in North Dakota, B., 316.

See also Franta, W.

Lavine, T. F., oxidation of cystine in nonaqueous media. VI. Reactions of the disulphoxide of l-cystine, especially its dismutative decompositions, A., 596. See also Toennies, G.

Lavino & Co., E.J. See Seil, G.E.

Lavollay, J., fixation and exchange of cations in living organisms; general character of the laws of base exchange, A., 247.

Lavrov, B. A., and Jarussova, N., nitrogen metabolism of birds with vitamindeficiency polyneuritis, A., 529.

Lavrov, F. A., and Perelman, T., influence of inert additions on lower limit of photochemical explosion of the H_2+Cl_2 mixture, A., 170.

and Sagulin, A. V., relationship between critical pressure and energy absorbed in the photochemical ignition of mixtures of hydrogen and chlorine, A.,

Lavrova, M. N. See Smirnova, M. I. Law, G. H. See Carbide & Carbon Chemicals Corp.

Law, H. D., properties of processed soya, B., 474, 568.

Law, J. L., and Gay, H., respiratory exchange in children following administration of various carbohydrates: relation to curves for blood-sugar, A., 1546.

Law, K. A. O., and Robison, R., influence of changes induced by cholesterol on calcification in vitro of rabbit aorta, A., 516.

See also Robison, R.

Law, M. See Parks, W. G. Law, N. H., conductometric titrations of the isomerie chromic chlorides with

silver nitrate, A., 1218.

Law, T. C. See Irwin, W. H. LaWall, C. H., and Harrisson, J. W. E., soya-bean flour in smoked meat products, B., 168.

Lawrance, J., barytes, B., 702.
Lawrence, C. A. See Barnett, E. de B.,
Cook, J. W., and Imperial Chem. Industries.

Lawrence, C. K., and Atmospheric Nitrogen Corp., fertiliser, (P.), B., 1118. See also Kniskern, W. H.

Lawrence, E. O. Seo Cork, J. M., and Lawrence, J. H.

Lawrence, F. Sco Graham, J. I.

Lawrence, G. Sco Gerstley, J. R.

Lawrence, J. H., Aebersold, P. C., and

Lawrence, E. O., comparative effects of X-rays and neutrons on normal and tumour tissue, A., 1413.

and Lawrence, E. O., biological action of neutron rays, A., 632.

Lawrence, R. D. See McCance, R. A. Lawrence, W. H., jun., and Lee Labs., Inc.,

calcium acetylsalicylato, (P.), B., 585.

Lawrence, W. S., Miller, T. H., and Kaumagraph Co., transfer, (P.), B., 560. Lawrence Leather Co., A. C. See Herzog,

Lawrie, L. G., textile finishing, B., 16. See also Imperial Chem. Industries.

Lawson, A., aconitine. I. Oxonitin and oxidation of aconitine with nitric acid and chromic acid, A., 351. See also Balson, E. W.

Lawson, C. G., chemisorption on charcoal. VII. Adsorption of water vapour, A.,

See also King, A.

Lawson, M. J., carbohydrate metabolism of

kidney, A., 1545. Lawson, R. P., blending of rubber and other materials; master-batches; treatment of scorched compound, B., 511.

Lawson, W. See Cook, J. W., and Dodds, E. C.

Lawson, W. E. See Du Pont de Nemours & Co., E. I.

Lawton, H. C., Loomis, A. G., Ambrose, H. A., and Gulf Res. & Development Corp., [oil-]well drilling fluid, (P.), B., 136.

See also Kennedy, H. T.

Lay, E., preparation, working, and uses of aluminium bronzes, B., 794.

Layman, J. H. See Kobe, K. A. Lazar, A., varnish and lacquer diluents from California petroleum, B., 800.

Lazard, A. See Joliot, F. Lazarev, N. See Glazunov, A.

Lazarev, N. V., theory of narcosis, A., 375. Activity of anæsthetics and their partition in blood, A., 891. Intensity of action of anæsthetics as a function of their omulsified state or solution in the blood, A., 1145. Effect of chloroorganic solvents on the human organism, B., 1032.

and Staryzyna, T. V., physico-chemical properties of organic poisons and the products derived from them in tho animal organism, A., 1023.

Lazareva, V. S. See Kozlov, N. S. Lazareva, A. I. See Schemjakin, F. M. Lazaris, J. A., specific action of products of intermediate tissue disintegration, A.,

Lazarus, A. S. See Salle, A. J.
Lazarus, S. See Cornthwaite, W. R.
Lazier, A. W. See Du Pont de Nemours &

Co., E. I. Lazurevski, G., composition of Artemisia scopariæformis, A., 1306. Composition of A. salina, A., 1306.

Lazzari, G. See Calcagni, G.

Lazzell, C. L. See Ashburn, II. V. Lea, A., red locust in Natal. I. and II., B., 211.

Lea, C. II., antioxidants and the preservation of ediblo fats, B., 1105.

Lea, F. M., properties of breeze and clinker aggregates and methods of testing their soundness, B., 1154.

Lea, D. R., Haines, R. B., and Coulson, C. A., mechanism of bactericidal action

of radio-active radiations. I. Theoretical. II. Experimental; α - and β particles, A., 641. Lea, F. C., and Arnold, R. N., embrittle-

ment of alloy steels, B., 374.

Lea, F. M., deterioration of concrete owing to chemical attack, B., 791.

Lea, W. L., and Nichols, M. S., influenco of substrate on biochemical oxygen demand, B., 957.

Leach, A. E., and Gen. Motors Corp., brake-lining material, (P.), B., 624.

Leach, C. H., heat-exchange apparatus, (P.), B., 351. Bubble tower apparatus, (P.), B., 963.

Leach, F. P. See Imperial Chem. Industries. Leach, L. D., and Davey, A. E., soil amendments for [control of] selerotium rot of sugar beet, B., 116. Toxicity of low concentrations of ammonia to mycelium and sclerotia of Sclerotium rolfsii, B., 117.

See also Davey, A. E.

Leach, L. L., Siemann, J. C., and Du Pont Cellophane Co., Inc., moisture-proof material, (P.), B., 96.

Leach, R. H., and Handy & Harman, [tarnish-resisting silver] alloys, (P.), B., 25. [Silversolder] alloy, (P.), B., 1048, 1101.

Leach, W., plant respiration. IV. Relation between respiration in air and in nitrogen of seeds in which carbohydrates constitute the chief food reserve, A., 649. Leadbetter, M. R. See Fuller, G. D.

Leah, A. S. See David, W. T.

Leahey, A., mineralogical and chemical studies on inorganic phosphorus compounds in the soil, B., 340.

Leahy, J. F., and Atlas Tack Corp., colouring of aluminium articles, (P.), B., 647, 1102. Leahy, M. J., removal of sulphur compounds from gas, (P.), B., 437.

Leake, C. D. See Anderson, Hamilton H., and Phatak, N. M.

Lean, R. J. See Quinney, H. Leaper, P. J., and U.S. Rubber Co., stabilisation of [perfumery] aldehyde products, (P.), B., 715.

See also Meuser, L. Learmouth, E. K., and Smiles, S., o-nitrophenylsulphenates of phenols, A., 719.

Leary, R. E. See Bent, H. E. Leas & McVitty, Inc. See Whitmore, L. M. Lease, E. J., and Tottingham, W. E., photochemical responses of wheat plant to spectral regions, A., 392.

See also Deobald, II. J.

Lease, J. G., nature and partial isolation of the substance curative of the pellagralike condition [in rats and chicks] due to dietary egg-white, A., 765.

Leather, R. S., abrasives used in polishing and builing of metals, B., 1094.

Leatherman, M., fireproofing of cellulosic materials, (P.). B., 100, 788, 1149.

Léauté, A., capillary resolution of tars, B., 50.

and Vierfond, T., ageing of road tars as function of their carbon content, B.,

Leaver, C. See Standard Oil Development Co. Lebanon Steel Foundry. See Jones, A. C. Le Baron, I. M. See Parks, W. G.

Lebeau, P., Marmasse, P., Michel, R., and Viel, G., carbonisation of woods and their principal constituents, B., 353. Sec also Baxter, G. P.

Lebedeff, Y. E. See Betterton, J. O. Lebedenko, N., and Elian, J., furnaces for obtaining volatile metals, (P.), B., 746.

Lebedev, A. K., sodium sulphite and hyposulphite as substitutes for cyanides in the selective flotation of complex poly-

metallic ores of non-ferrous metals, B., 645.

Lebedev, S. V., and Borgman, J. A., polymerisation. XVI. Polymerisation of isobutylene by the action of floridin at low temperatures, A., 702.

Gorin, J. A., and Chutoretzkaja, S. N., mechanism of catalytic conversion of alcohols into diethylene hydrocarbons,

Guljaeva, A. I., and Vassiliev, A. A., hydrogenation of vinylacetylene, A.,

and Kudrjavtzev, N. A., action of certain silicates on hydrocarbons possessing the tert.-butyl radical, A., 702.

and Orlov, S. M., polymerisation. XV. Polymerisation of ψ -butylene, A., 702. and Sergienko, S. R., dimerisation of $\Delta^{a\gamma}$ -butadiene, A., 702.

Subbotin, S. A., and Butschakov, G. I., action of high temperatures on vulcanised sodium-butadiene rubber, B.,

Lebedeva, A. P., and Potschinok, K. N. determination of the forms of calcium and oxalic acid in leaves of sugar-beet, A., 909. Leberle, H., innovations and experiences

in the malt house and brewery, B., 518. Le Blanc, F., Wright, T., and Taylor, John Bailey, oil of chenopodium and chenopodium plants for eradication of round worms in swine, B., 211. Le Blanc, M., and Wehner, G., [gold-

copper alloys], A., 559. Leblond, C. P. See Giroud, A., and Randoin, L.

Lebo, R. B., Beamer, C. M., and Standard Alcohol Co., purification of esters, (P.),

Le Bosquet, M. See Buswell, A. M.

Le Boucher, L., nitrites. III. Ammines of cobaltous nitrite, A., 948. Ruff's method for measurement of vapour pressures at high temperatures; vapour pressures of zinc, cadmium, magnesium, calcium, strontium, barium, and aluminium fluorides, A., 1191.

and Bosch, F. de A., physical and chemical constants of fats of Spanish origin. I. Beef fats, B., 845.

See also Martinez-Cros, J. Leboucq, $G_{\cdot \cdot}$, formation of myelin studied

in polarised light, A., 624.

Le Bras, J. See Dufraisse, C. Lebre, A. F., heat and cold, (P.), B.,

Le Breton, E., rate of oxidation of ethyl alcohol in homoiotherms during growth, A., 1018. Influence of fasting on the rate of oxidation of ethyl alcohol in rats, A., 1018. Biochemical and physiological significance of the oxidation of ethyl alcohol in the organism, A., 1019. Percentage of oxidation due to ethyl alcohol in poikilotherms, A., 1019.

Le Brocq, L. F. See Sutton, H.
Lebrun, P., finishing of pure and parweighted silk-crêpe fabrics, B., 16. Finishing of cotton-rayon necktie fabrics,

Lecat, M., orthobaric azeotropes, A., 280, 675, 931.

Le Chatelier, F., method for comparing mechanical properties of heat-treated alloy steels, B., 839.

Lechler, P., emulsions of bitumen, resins,

waxes, etc., (P.), B., 533. Lechner, R. See Fink, H. Leckie, A. H. See Angus, W. R.

Leckie, F. See Friend, W. Z.
Leckie, J. N. See Meade, D.
Leckzyck, E. See Lieser, T.
Leclerc, E., atmospheric pollution by household fires, B., 397.

See also Gillet, A. Le Clerc, J. A. See Bailey, L. H., and Davidson, J.

Le Clerc, V., diuresis during insulin hypo-

glycæmia, A., 1565. Le Clerg, E. L. See Immer, F. R.

Lecoeuvre, R., protection against corrosion by introduction of opposed electrolytic actions, B., 374.

See also Grard, C.

Lecoin, M., deviation of β -rays by nitrogen nuclei, A., 540. Continuous β spectrum of actinium-B, A., 658. Continuous β [-ray] spectrum of radium-E, A., 1172.

See also Goldstein, L.

Lecomte, J., infra-red absorption spectra of nuclear halogenated hydrocarbons, A., 407. Infra-red absorption spectra and modes of vibration of organic compounds, A., 921.

Piaux, L., and Miller, O., Raman and infra-red spectra of stereoisomeric 1:3and 1:4-dimethylcyclohexanes and of 1:1-dimethylcyclohexane, A., 663.

See also Cheng, H. C., and Lambert, P. Lecoq, R., vitamin-B in relation to carbohydrates, proteins, and fats in food, A., 118. Is lactic impregnation of the tissues the true cause of avian polyneuritis? A., 253. "Disequilibriating" effect of fructose, A., 368. Antirachitic action of phosphorus and of inorganic and organic phosphorus compounds, A., 648. Production of avian polyneuritis by addition of lactic acid to diets rich in sugar, protein, or fat, containing considerable quantities of the B vitamins, A., 904. Ash-manna as a source of vitamins and a cause of alimentary disturbances, A., 1032. Nutrient value and vitamin contents of muscat dates, B., 393.

and Barban, M. L., modifications of antirachitic activity of orthophosphoric acid by fixation of alcoholic, phenolic, and glucosidic chains, A., 765.

Lecoq, R., and Carel, R., comparison of actions of certain dietary lipins in producing acetonæmia, A., 234.

and Duffau, R., composition of muscle of

normal adult pigeons at rest, A., 879. and Joly, J. M., determination of basal metabolism in the adult pigeon during nutritional studies, A., 874. Effect of alimentary disequilibrium on respiratory quotient and basal metabolism

of pigeons, A., 1016. Lecordier, G. See Kling, A. L'Ecuyer, P. See King, F. E.

Leda Electric Co., Ltd., and Nicholson, A., apparatus for softening and heating water, (P.), B., 175.

Lederer, B., treatment of textile fabrics and leather, (P.), B., 985.

Lederer, E., and Moore, T., echinenone as a provitamin-A, A., 1031.

See also Duschinsky, R., and Frisch, C. Lederer, E. L., electrolytic coagulation of Prussian-blue sols, A., 1067. Kinetics of catalytic oxidation of hydrocarbons and their derivatives, B., 10. Kinetics of oxidation of fats and oils, B., 27. New German cracking process, B., 581.

Lederer, F. See Weber, L. I.
Lederle, E., molybdate-red, a new lead chromate pigment, B., 1107. Lednum, E. T. See Du Pont de Nemours &

Co., E. I.

Ledwith, R. J., synthetic finishes, B., 205. Lee, A. R., adhesion in relation to bituminous road materials, B., 235.

See also Mitchell, J. G. Lee, C. F. See Pottinger, S. R.

Lee, C. L., and Gon. Motors Corp., heat treatment of piston rings, (P.), B., 646. Lee, C. M., and Chung, H. L., action of various organic antimony compounds on Schistosoma japonicum in vitro, A., 897.

Lee, C. U., and Chu, C. F., relative values of urea-stibamine and neostibosan in treatment of kala-azar, A., 883.

Lee, (Miss) D. A. See Mack, G. L.

Lee, D. H. K., and Mulder, A. G., some immediate physiological effects of reduced cooling powers on human subjects. A., 238. Immediate effects of reduced cooling powers on the water balance and related effects in the human subject, A.,

Lee, E. See Dix-Perkin, A. L.

Lee, E. (Manchester). See Tolansky, S.

Lee, E. M. See Coward, K. H. Lee, F. E., and Consolidated Mining & Smelting Co. of Canada, treatment of zinc sulphide ores, (P.), B., 25.
Lee, F. H., and Hsia, T. C., Chinese gall-

nuts, B., 561.

and Lee, K. H., polyhalides. I. Solubility of iodine in hydrobromic acid,

and Li, C. H., decomposition potentials of Grignard reagents in ether solution, A., 938.

Lee, G. A. See McKeown, T. H. Lee, H., apparatus with ground-glass

joints, A., 815.
Lee, H. J., determination of cystine by Sullivan's method: supposed cleavage of cystine from casein by dilute alkali, A., 353

Lee, H. M., Van Arendonk, A. M., and Chen, K. K., [pharmacology of] twentythree quaternary ammonium iodides, A., 892.

Lee, H. R. See Du Pont de Nemours & Co., E. I.

Let H. S., non-protein-nitrogen content of blood of healthy Korean adults, A., 356,

Lee, I. E. See Du Pont Nemours & Co., E. I.

Lee, J., and Christiansen, W. G., preparation and physiological properties of some 2 - phenyl - 4:5:6:7 - tetrahydroisoindazolones, A., 1268.

and Squibb & Sons, E. R., amidines,

(P.), B., 874.

Lee, J. van der. See Verkade, P. E.

Lee, J. A., metals and alloys used in construction of chemical plant, B., 745.

Lee, K. H. See Lee, F. H.

Lee, L. See Chesters, J. H.

Lee, M. See Ayres, G. B. Lee, S., effect of Capsicum annuum on serum-protein, A., 905.

Lee, Sydney. See Pennock, A. G. L.

Lee, W. M., alkyl thiocyanates and similar esters, (P.), B., 138. Mercaptans and thio-ethers, (P.), B., 1193.

Lee, W. Y., formation and distribution of vitamin-C in the germinating pea,

Pisum sativum, L., A., 1160. and Read, B. E., effect of light on production and distribution of ascorbic acid in germinated soya-beans, A.,

Lee, Y. C., effect of nicotine on sex and sexual hormone, A., 376. Relation between nicotine and the sexual hormone. I. Lethal dose of nicotine and sexual difference. II. Effect of castration and sexual hormone on nicotine activity. III. Effect of nicotine on morphological and histological changes of female sex organs after injections of female sexual hormones. IV. Antidotal action of luteohormone on nicotine toxicity during anaphylaxis. V. Discussion and conclusion, A., 892.

Lee, Y. M. See Chi, Y. F.

Lee Laboratories, Inc. See Lawrence, W. H., jun.

Leeden, R. van der, value of waste products in tannery and slaughterhouse waste water, B., 814.

Leeds & Northrup Co. See Harsch, J. W. Leefers, J. L. See Böeseken, J.

Leekley, R. M., and Shaw, E. M., jun., $\beta\gamma$ -dihydroxypropylmalonic ester and its propyl homologue, A., 1230.

Leendertse, J. J. See Waterman, H. I. Leent, F. J. van, chemistry of barbituric acid derivatives, B., 906.

Leeper, G. W., soil and manganese deficiency, B., 340.

Lees, J. H., casium-oxygen films on tungsten, A., 771.

Leet, R. See South Metropolitan Gas Co. Leetz, W., treatment of ooze, (P.), B.,

Leeuwen, J. J. van, neutral fat content of the blood in liver disease, A., 1015.

Lefaux, R., determination of tyrosine index of serum polypeptides, A., 356. Xanthoproteic reaction: its application to determination of the tyrosine index of serum-polypeptides and of bloodphenols, A., 746. Lefebure, J. S. See Imperial Chem.

Industries.

Lefebvre, C. L. See Grandfield, C. O. Lefebyre-Carnot, P. See Soc. Franc. de la Viscose.

Leferre, A. G., soda treatment in ferrous metallurgy, B., 838.

Le Fèvre, (Mrs.) C. G., and Le Fèvre, R. J. W., relation between molecular orientation polarisation of substances in the liquid, dissolved, and gaseous states, A., 140. Dipole moments of cyclohexa-1:4-dione, cyclopentadienebenzoquinone, benzoquinone, carbon suboxide, and carbonyl chloride, A., 140. Minimum estimate of dipole moments of two oxonium salts, A., 550. Apparent dipole moments of benzene, p-dichlorobenzene, diphenyl, 4:4'-dichlorodiphenyl, and carbon disulphide in polar solvents, A., 779. Inductive effects in the diphenyl series, A., 1183.

See also Angus, W. R., and Hughes, E. D.

Lefevre, M. L. See Bale, W. F. Le Fèvre, R. J. W., and Russell, P., solvent effect in dipole-moment measurements: polarisations of chloro- and nitrobenzene, chloroform, and bromoform in polar solvents, A., 779. Apparent dipole moment of paraldehyde in various solvents, A., 780.

See also Angus, W. R., Hughes, E. D., and Le Fèvre, (Mrs.) C. G. Le Fèvre, W. J. See Morton, A. A.

Leffingwell, G., use of glycerin in papermaking, B., 1200.

Leffler, M. T., and Adams, Roger, aa'-dideuterosuccinic acid and its deriva-II. Stereochemistry of the type CHDRR', A., 1361. Stereochemistry of deuterium compounds of the type, CHRR'; 2:3-dideuterocamphane, A.,

Lefforge, J. W. See Ekeley, J. B. Lefol, J. See Dubrisay, R. Lefrano, C. See Guillaume, A. Lefranc, J. G. A., ceramic products and

their applications, (P.), B., 545.

Lefrou, G., and Auffret, L., absence of correlation between lacto-gelification and protein disequilibrium of blood-serum, A., 94.

Le Gal, G. See Peter, Fritz.

Legard, A. R. See Hinshelwood, C. N. Legat, R. See Jablezyński, K.

Legault, R. R. See Davis, M. E., Kharasch, M. S., and Lilly & Co., E.

Lege, W. See Lettré, H. Legendre, R. See Grard, C.

Léger, E., constitution of aloins, A., 610.

Legg, D. A., and Commercial Solvents Corp., production of butyl alcohol by fermentation, (P.), B., 1174. Yeast fermentation, (P.), B., 1228.

See also Commercial Solvents Corp. Legg, V. E. See Bell Telephone Labs.

Le Gloahec, V. C. E., and Herter, J. R., recovery of alginous material from seaweed, (P.), B., 926. Recovery of iodine from sea-weed, (P.), B., 1093.

Le Goff, J. M., differential biological reaction of cobaltous compounds and of some cobaltic complexes (cobaltiam-

mines), A., 105. Legoux, P., relation of the granite-gneiss and the schists and quartzites in W. Africa, A., 1357.

Le Gnyon, R., rapid process for macroscopic agglutination after centrifuging, A., 1531.

Lehberg, F. H. See Geddes, W. F. Le Heux, J. W. See Bijlsma, U. G.

Lehfeldt, W., electronic conduction in silver and thallium halide crystals. I. Electron yield on light absorption in spectral regions of high absorption. II. Photo-electric secondary current, A., 138. Lehl, H., böhmite and bayerite, A., 307. Lehman, A. J., pigeon bio-assays and diuretic tests of digitalis substances, A.,

Lehmann, E., new diene syntheses. II.. A., 605.

Lehmann, F. B. See under Lehmann, J. M. Lehmann, G. See Atzler, E.

Lehmann, H., enzymic synthesis of creatinephosphoric acid by phosphate transfer from phosphopyruvic acid, A., 245. Reversible transfer of phosphate between the adenylic acid system and phos-

phagens, A., 1236. Lehmann, J., is the occurrence of methylglyoxal in the urine specific for avitaminosis-B? A., 529.

Lehmann, J. M., mixing and grinding mill with grinding rollers, (P.), B., 80. Apparatus for separating fine and coarse material particles, (P.), B., 722. Apparatus for simultaneously separating and cooling fine pulverulent materials, (P.), B., 1072.

Lehmann, W., [graphite] electrodes for electric-discharge vessels, (P.), B., 378.

Lehmkuhl, H. W., maintaining desired alkalinity in [milk-]bottle- and canwasher solutions, B., 250. Washing apparatus, (P.), B., 379. Testing chlorine solutions, (P.), B., 407.

Lehmstedt, K., Bruns, W., and Klee, H., acridine. XV. Relationship between basicity and radical formation during the action of alkali metal on bases of the acridine series, A., 1521.

and Klee, H., acridine. XIII. ms-Acridine derivatives. IV. "Acridol" and the tautomerism, N-hydroxyacridone-5-hydroxyacridine 10-oxide. XIV. ms-Acridine derivatives. Acridine 5:10-peroxide, A., 863, 999. Lehn & Fink, Inc. See Klarmann, E.

Lehre, E., internal structures in [sugar] diffusers for the better percolation of the

leach liquor, B., 1225.

Lehrecke, H., decomposition of raw phosphate with sulphuric acid. I, and II., B., 738. Determination of free acid in superphosphate and a method of extraction, B., 985.

Lehrman, A., Selditch, H., and Skell, P., system potassium dichromate-sodium

dichromate, A., 1340. Leibnitz, H. M. See Bothe, W.

Leibusch, A. G. See Karshavin, V. A. Leicester, H. M. See Midgley, T., jun.

Leicester, W. F., glued-up plywood, (P.), B., 1208.

Leich, A., [disposal of] sewage sludge, B.,

Leifson, E., use of sodium deoxycholate for identification of pneumococci, A., 641.

Leigh, A. G., purifying, conditioning, and attemperating air, (P.), B., 957.
Leigh, O. C. See Heim, J. W.

Leigh-Smith, A., and Richardson, H. O. W., respiratory apparatus for protection against noxious gases, (P.), B., 174, 766.

Leighton, A., and Leviton, A., solubilityf.p. relations of water saturated with respect to sucrose and glucose in relation to the storage of sherbet and water ice, B., 665.

See also Leviton, A.

Leighton, P. A., and Mortensen, R. A., photolysis of lead tetramethyl and lead tetraphenyl, A., 573.

and Steiner, A. B., photochemical decomposition of methane, A., 1348.

Leighton, P. R. See Cross, P. C. Leinbach, L. R. See Edwards, P. W.Leiner, G., gaseous nitrogen content of the

blood, A., 1134. Leineweber, W. See Uhlitzsch, W. H. Leinfelder, P. J., and Salit, P. W., lipins of retina, brain, and blood, A.,

878. Leinzinger, M. See Issekutz, B. von. Leipold, C., preparation and conditioning of aluminium sulphate solution before

applying to water, B., 302. Leipunski, A. I., determination of the energy distribution of recoil atoms during β decay and the existence of the neutrino, A., 918.

See also Fomin, V.

Leipunski, O. I., van der Waals, activated, and atomic adsorption of hydrogen on copper and nickel, and their influence on the photo-effect, A., 153. Recombin-ation of atomic hydrogen in adsorbed layers, A., 1457.

Leitch, J. D. See Annetts, (Miss) M. Leitch, L. C. See Manske, R. H. F.

Leitch & Co., Ltd., J. W., Everest, A. E., and Wallwork, J. A., dyeing of animal

fibres, (P.), B., 189, 1204. Leites, S. M., Lifschitz, L. S., and Odinov, A. I., fat metabolism in liver disease, A., 883.

and Odinov, A. I., liver-ketogenesis and its auto-regulation, A., 236. Ketogenesis in liver poisoned with phosphorus, A., 1020.

Sorkin, E., and Agaletzkaja, A., pathophysiology of fat metabolism in

thyroid diseases, A., 1142.

Leites, V., vogetable glues and adhesives, B., 657.

Leitgebel, W., temperature dependence of the vapour pressure of metals, A., 557. Volatilisation process in metallurgical work, B., 886.

and Bockemühl, K., influence of silicic acid on magnetic behaviour of dissociated mixtures with ferrie oxide, A.,

Leith, A. See Leith, C. K. Leith, C. K., Lund, R. J., and Leith, A., pre-Cambrian rocks of the Lake Superior region, A., 50.

Leithäuser, II. See Keppers Co. of Delaware.

Leithe, W., refractometric determination of fat in oil seeds with bromonaphthalene, B., 461. Refractometric determination of fat in milk and milk products, B., 713.

and Heinz, H. J., refractometric determination of fatty acids in soaps and washing powders, B., 798.

and Müller, Erika, preparation of proteinfree milk-serum in the cold, A., 1012.

Leitmeier, H., baryte from Kitzbühel, Tyrol, A., 48.

and Feigl, F., tests for molybdenum, lead, and cobalt in minerals and rocks, A., 580.

Corporation. See Rodman, Lektophone I. P.

Lektorsky, I. N., and Kuzmina, N. A. rôle of the thyroid in process plumage development in chicks, A., **116.**

Leland, C. H. See White, Alfred H. Leland, J. P. See Foster, G. L. Lelgemann, W., treating of hydrocarbon products, (P.), B., 1079.

Lellep, O., apparatus for burning [cementitious] materials, (P.), B., 63. Heat exchanger and clinker cooler, (P.), B.,

epol, Internat. Patentverwertungs-Ges.m.b.H., and N.V. "Solopol" In-Lepol, genieur-Bureau tot Exploit. van het System Polysius, apparatus for treating finely-divided material, (P.), B., 48.
Treatment of coment and similar materials, (P.), B., 63.

Leloir, L. F. See Houssay, B. A. Leltschuk, S. L. See Dolgov, B. N. Lemaire, E., cure of anemia by ingestion

of mammalian liver, A., 882.

Lemaitre, G., and Vallarta, M. S., geomagnetic analysis of cosmic radiation,

Lemale, P. C., apparatus for concentrating and refrigerating liquids, (P.), B., 673. Leman, A., comparative acetylation of naphthols, A., 602.

Lemarchands, M., and Convers, L., surface tension of mercury and its alloys, A.,

Lemberg, R., and Wyndham, R., reduction of biliverdin to bilirubin in tissues, A., 1150.

Lemeche, M. R. See Nikiforov, V. K. Le Mesurier, L. J. See Boerlage, G. D. Le Messurier, H. See Hicks, C. S.

Lemmel, L, new derivatives of the lignin from Spanish Pinus sylvestris. III. Spectroscopic study of the wood, A., 1435. Separation of lignin from cellulose by ethyl acetoacetate. IV., B., 829.

See also Piña de Rubies, S.

Lemmer, F. See Fenrobert, E. Lemmermann, O., stall-manuro problems, B., 165. Hellriegel's examination of the nitrogen nutrition of Graminece and

Leguminoseæ, B., 1060.
Lemmon, D. M., augelite from Mono County, California, A., 50.

Lemmon, P., respiration of potato tissue in relation to $p_{\rm H}$ of a surrounding solution, A., 1569. Lemmon, R. J., one-pulp settlement and

filtration in cyanidation of gold ores, B., 325.

Le Moal, A. See Warcollier, G.

Lemoigne, M., Mongnillon, P., and Desveaux, R., detection of hydroxylamine in autolysed green leaves, A., 124. Compounds of hydroxylamine in fresh leaves of higher plants, A., 532. Production of hydroxylamine from ammonia by Aspergillus niger, A., 639. Biological rôle of hydroxylamine. II. Reaction III. Hydroxylfor hydroxylamine. amine in the leaves of higher plants. IV. Utilisation of hydroxylamine salts by Aspergillus niger. V. Production of hydroxylamine by A, niger at the expense of nitrate- and ammonia-nitrogen, A., 1036, 1300.

Lemoine, R., high-grade cast iron from the cupola furnace, B., 547.

See also Portevin, A.

Lemon, J. T., and Lowry, T. M., properties of the oxides of nitrogen. V. Combustion in the system nitric anhydride-ozone, A., 1350.

See also Lowry, T. M. Lemonde, H., interpretation of diffusion and viscosity curves in binary mixtures, A., 558. Diffusion isotherms for binary mixtures, A., 674. Diffusion and azeotropism in binary mixtures, A., 675.

Lenander, N. E., and Texas Gulf Sulphur Co., pyritic smelting and recovery of sulphur, (P.), B., 25.

Lencauehez, L., non-metallic inclusions in brass chill eastings, B., 935.

Lendle, A., the periodic system and biological action, A., 1413.

See also Geib, K.H.Lendle, L., rate of elimination and accumulation of digitalis glucosides and strophanthin, A., 634. Comparative action of cardiazole and coramine in animals, A., 1022. Distribution, climination, and accumulation of strophanthidin and the activity of its esters, A., 1294.

Lengyel, E., petrochemistry of granites of Tarpatak Valley of High Tatra, A., 818. Lenhart, J. K. See Fraser, Hugh J.

Lenher, S. See Du Pont de Nemours & Co., $E.\ I.$

Leningradski Institut. Mekhanobr., flotation of tungsten ores, B., 640.

Lenk, G. E., analysis of gold-palladium-

silver alloys, B., 1099. Lennard-Jones, J. E., and Devonshire, A. F., diffraction and selective adsorption of atoms at crystal surfaces, A., 925. Interaction of atoms and molecules with solid surfaces. III. and IV. Condensation and evaporation of atoms and

molecules, A., 1448. Lennerstrand, A., rôle of cozymase in phosphorylation in yeast systems, A., 1151. Inactivation of cozymase in an apozymase system poisoned with fluoride, A., 1555.

and Runnström, J., oxidation, phosphorylation, and fermentation by apozymase in presence of reversible oxido-reduction systems, A., 380.

Lennings, W., utilisation of scrap metal in blast furnaces, B., 597.

Lennox, C. G., applications of the hand refractometer in sugar-cane research. I. Sampling sugar-cane for sucrose. III. Practical uses for the "punch-juice sample," B., 39.

Lennox, F. G., photochemical oxidation of

hæmoglobin, A., 92. Laboratory desic-

cants: silica gel, A., 583. Lennox, L. W. See Mills, L. D. Lenoci, R. See Berlingozzi, S.

Lenoir, J., adsorption of dyes on glass,

A., 1064.

Lenox, Inc. See Brown, L. Lenssen, M. H., and Michels, A., theory of influence of pressure on electrical resistance of metals, A., 144.

Lentz, C. J. Sce Bunce, E. H. Lenze, A. Sce Bunte, K.

Leo, H. T., press and filter, (P.), B., 961. Taylor, C. C., and Beck, F. A., pectous

material, $(\dot{P}.)$, B., 1176. Leo, S. T., and Chang, C. T., liming process in leather manufacture, B.,

290. Fat-liquoring of chrome-tanned leather, B., 290. and Wei, W. C., Po-Shan bauxite as a

possible raw material for production of aluminium in China, B., 884.

Leon, M. See Harben's (Viscose Silk Manufrs.).

Leonard, C. S., and Champlin, A., colorimetric assay of bismuth pharmaceuticals, B., 43.

Leonard, E. R. See Wardlaw, C. W. Leonard, M. D. See Hoyer, D. G.

Leonard, O. A., tissue function and organic solute movement in the sunflower, A.,

1431.

Leonard, S. L., pituitary-thyroid-gonad

relationship, A., 1563. and Hansen, I. B., influence of thyroidectomy on effectiveness of gonadstimulating hormones, A., 527.

See also Clark, L. B. Leonardi, M. See Bucciardi, G. Leonardsen, R. See Berner, E.

Leone, S. T., iodinated eggs, B., 953. Leong, P. C. See Harris, L. J. Leonhard, K. See Chrzaszcz, T.

Leonhardt, H., and Klockmann, R., deter-

mination of pyridine according to the "Erganzungsbuch 5," A., 620.

and Oechler, E., constituents of red sandalwood; homopterocarpin, A., 81. Leonhardt, J., and Borchert, W., lattice constitution and growth of polymorphic substances, especially potassium nitrate, in the transition range, A.,

and Kühn, R., violet kainite containing hydrogen sulphide, A., 959.

and Tiemeyer, R., arrangement of lattice blocks in the mosaic crystal, investigated with fused sodium nitrate crystals, A., 1450.

Leontev, I., physicochemical and immunological properties of the protein from seeds of *Phaseolus aureus*, R., A., 1038. Effect of feeding white mice, with the proto-acid of peas, A., 1143. Effect of feeding young foxes with the proto-acid of peas, A., 1143. Biological identification of proteins. I., III.-

V., VII., IX., X., and XII., A., 1147. and Grafskaja, Z., biological identification of proteins. VIII., A., 1147. and Markova, K., identity of racemisation curves of some "proto-acids," A., 1037.

Leonteva, A. A. See Volarovitsch, M. P. Leontovitsch, M. See Mandelstam, L. Leopold, Heinrich, and Horak, W., new kind of damage in a brewing barley,

B., 166. Leopold, Herbert, production of natural indigo in Japan, B., 229. Dyeing in

Japan, B., 736. Leopoldi, G. See Fischer, Hellmut.

Leot, G., deacidification of oils and fats,

(P.), B., 1004.

Leperson, M. See Roiter, V. Lepersonne, J., alkali waters of the London chalk layers, A., 1086.

Lepierre, C., determination of water and fat in fresh sardines, B., 953.

Lepigre, A., insect destruction in grain by ethylene oxide-carbon dioxide mixtures; note on methyl bromide, B., 898.

Lepin, L., and Strachova, G., reversibility of adsorption of dissolved substances on ash-free charcoal, A., 791.

Lepkovsky, S., Feskov, G. V., and Evans, H. M., use of fractionating column for separation of fatty acids, A., 965.

and Jukes, T. H., effect of some reagents on the "filtrate factor" (water-soluble vitamin belonging to the vitamin-B complex and preventing a dietary dermatitis in chicks), A., 904.

Jukes, T. H., and Krause, M. E., multiple nature of the third factor of the vîtamin-B complex, A., 1429.

See also Jukes, T. H.

Leplat, G., application of histological and histochemical methods to the study of collagen fibres, B., 141. Application of histological methods to the leather industry, B., 339.

Lepol, Internationale Patentverwertungs-

Ges.m.b.H. See Lellep, O. Leporati, Y. E. See Perazzo, A. A. Lepp, H. See Comp. Gén. d'Electromét.

Leprince-Ringuet, L., sudden losses of energy undergone by high-energy electrons, A., 4. Sign and nature of the ultra-penetrating particles of cosmic radiation, A., 133. Cosmic-ray particles of high penetrating power, A., 403. Lerch, W. B., and Dowar, J. S., treatment

of petroleum emulsions, (P.), B., 9.

Lerman, J. See Salter, W. T.
Lermann, W. W., and Nelson, L. M., jun., influence of the pylorus on the regulation of the acidity of gastric secretion, A., 1536.

Lerner, H. H. See Jankelson, I. R. Le Roi, E. J. See Turner, S. D.

Leroux, A., [siliceous] moulding masses, B., 370.

and Franco-Belge d'Ougrée, ammonium and alkali formates, (P.), B., 593.

Leroux, A. L. See Niedmann, F. G. C. Leroux, D., effect of trituration of agricultural soils with water on the content of aqueous extracts in substances essential as fertilisers, B., 1059.

Leroux, R., chemistry and cancer; chemical earcinogenic agents, A., 626.

Leroy, A., welding corrosion-resistant steels, B., 547. Micro-analysis of steel; determination of manganese, 839.

Leroy, A. R. See Brick Trust. Lesbre, M., arylstannonic acids and their halogenated derivatives, A., 1528.

See also Tchakirian, A. Lesch, W. See Giesecke, F. Leschewski, K., and Podsehus, E., action of

alkali hydroxide solutions on ultra-marine blue, A., 38. See also Podschus, E.

Leschhorn, O. See Fischer, Hans.

Lesh, J. B. See Fulmer, E. I. Leslie, R. T., and White, J. D., isolation and identification of volatile hydrocarbons in a Mid-Continent petroleum, B., 226.

Leslie, W. M., and Butler, J. A. V., mechanism of electrolytic processes. III. Irreversible reductions, A., 1207. See also Butler, J. A. V.

Lesné, E., Briskas, S. B., and Lardé, R., blood-cholesterol in hypothyroidism, A., 505.

Briskas, S. B., and Zizine, P., variations of blood-copper in normal children at different ages, A., 876. Copper and iron in the blood of anæmic infants, A., 1014. Iron and copper in the liver and spleen of children of various ages, A., 1286.

Lespagnol, A., and Bar, (Mlle.) D., mercury derivatives of o-cresotic acid, 1004.

Lesperon, L. See Grasse, P. P.

Lespieau, R., synthesis of dl-arabitol, A., 1229.

and Heitzmann, P., dierotyl [$\Delta^{\beta\zeta}$. octadiene], A., 310.

Lesser, C. E. See Nicholson, M. N. Lesser, R. See I. G. Farbenind.

Lessheim, H., diamagnetism and particle size, A., 1453.

and Samuel, R., dissociation of some molecules with free valencies, A., 272. Dissociation of SnCl and SnCl2, A., 411. Linking of magnesium oxide, A.,

Lessing, R., industrial aspects of disperso systems in air and gases; introduction, B., 959. Coal as a source of liquid fuel, B., 965. Sources of atmospheric pollution, B., 1022. Treatment of combustion and distillation gases [to recover ammonium sulphate], (P.), B., 85.

Lesslie, (Miss) M. S., and Turner, E. E., configuration of heterocyclic compounds. IV. Optical resolution of 10phenylphenoxarsine-2-carboxylic acid.

A., 1004.

Lestra, H. See Massot, A. Lesure, A. See Loeper, M.

Leszczyński, R. J., synergism of narcotic poisons, A., 240. Effect of poisons of different pharmacological types on chromatic function of frog's skin, A., 241. Lethersich, W., obtaining and controlling high humidities at high temperatures, A.,

Le Thomas, A., cast iron and [its production in] electric furnaces, B., 277.

and Ballay, M., special cast irons, B., 277.

Letner, H. R., and Stewart, G. W., comparison by X-ray diffraction of p-azoxyanisole in liquid and liquid-crystalline

phases, A., 1186. Letonoff, T. V., and Reinhold, J. G., colorimetric determination of inorganic sulphate in serum and urine, A., 914.

Letort, M., polymeride of acetaldehyde, A., 591. Effect of the reaction products on thermal decomposition of gaseous acetaldehyde, A., 708.

Le Tourneur-Hugon, and Chambionnat, [determination of nitrogen by the] Kjeldahl method, A., 811.

Lettré, H., Barnbeck, H., and Lege, W., isomorphism of organic compounds, A., 786.

Barnbeck, H., and Staunau, H., partial racemisation. I., A., 1107.

and Hagedorn, A., steryl glucosides, A.,

Leuch, W. P., and Harding, Ltd., S. C. & P., photographic diazotype prints, (P.), B., 172.

Leuchs, H., and Diels, W., Strychnos alkaloids. LXXXIX. Behaviour of strychninonic acid towards barium peroxide, A., 351.

and Dornov, A., Strychnos alkaloids. LXXXVIII. Transformation of dihydrobrucine into three isomerides and preparation of isodihydrostrychnine. XC. iso-Forms of dihydrobrucine and -strychnine and their benzylidene derivatives, A., 217, 1278.

Leulier, A., glycuronic acid, A., 1093. and Béruard, G., antagonism of cryogenin and 2:4-dinitrophenol, A., 106. Repeated injections of a thio-deriv-

ative of gold: tolerance and localisation, A., 108. Leunig, H., bactericidal action of am-

monium persulphate, A., 524. Lev, J. S. See Golombik, M. S.

Lev, L., Polozov, V., and Viktorov, E., stabilisation and desulphurisation of

shale gasolines, B., 1188. Levaditi, C., Haber, P., and Hornus, G., study of the relations between bacteria, ultra-viruses, bacteriophages, toxins, and enzymes, by means of the action of gonacrine, A., 385.

Hornus, G., Vaisman, A., and Manin, Y., mechanism of protective action of bismuth in experimental syphilis,

A., 627.

Levaditi, C., Paic, M., and Krassnoff, D., determination of the dimensions of ultraviruses by ultrafiltration: virus of herpes, A., 642.

Paic, M., Voet, J., and Krassnoff, D., ultrafilterability and probable dimensions of bacteriophages, A., 1029.

Levanas, L. D. See Kaplan, J.

Levaschova, N. See Remesov, I. Levecke, H., spontaneous ignition of lin-seed oil, B., 241.

Levene, P. A., hexadecane, A., 587.

[with Kuna, M.], synthesis of a-aminoβ-hydroxypropane, A., 458. Hydrogenation of phenylated carbinols, A., Ĭ246.

and Compton, J., detosylation [deacylation] of isopropylidene-l-methylrhamnoside-4- and -5-p-tolnenesul-phonates, A., 192. Structure of dxylomethylose, A., 317. Synthetic nucleosides. IV. Theophylline-5methyl-l-rhamnofuranoside, A., 827.

and Harris, S. A., optical rotation of phenylethylmethyloctylmethane phenyl-y-methylundecane], A., Maximum rotations of carboxylic acids containing a phenylethyl group, A., 70. Configurative relationships of phenylmethyl- and methylhexylacetic acids; correlation of the configurations of a-hydroxy-acids with those of disubstituted acetic acids containing a methyl group, A., 188. Configurative relationship of methylcyclohexylcarbinol to methylhexylcarbinol, A., 466.

and Marker, R. E. [with Kuna, M.], optical rotations in homologous series of aliphatic amines, A., 1235.

and Rothen, A., optical rotation of configuratively related aldehydes, A., 55. Rotatory dispersion of aliphatic aldehydes, A., 271. Optical activity and chemical structure, A., 1484.

and Rothen, A. [with Kuna, M.], optical rotation of configuratively related

azides, A., 1368.

Rothen, A., and Marker, R. E., analysis of rotatory dispersions of configuratively related halides, A., 1051. Rothen, A., and Marker, R. E. [with

Knna, M.], optical rotations and rotatory dispersions in homologous of aliphatic nitriles, series 1238.

Rothen, A., and Meyer, G. M., configurative relationship of disubstituted acetic and propionic acids containing an ethyl group, A., 1360. and Tipson, R. S., preparation of xylulose

and ribulose, A., 1490. and Yang, P. S., oxidation of dl-ahydroxystearic acid and its significance as regards structure of cerebronie acid, A., 54.

Levenson, S., staining of bacterial flagella, A., 1028.

Levenson, V. E., and Kotschmarev, A. T., applicability of potentiometric titration to separate determination of the various oxides of vanadium in ores, B.,

Leventer, I. See Engl, J.

Lever, D., determination of reducing sugars in cane molasses, B., 710.

and Mazumder, M. M., determination of ash in cane molasses: general conductometric formula, B., 1120.

Lever Brothers Co. See Anderson, C. N.

Lever Brothers, Ltd., and Furness, R., polyglycerol esters, (P.), B., 360.

Furness, R., and Fairbourne, A., washing preparations, etc., (P.), B., 204.

Leverton, R. M. See Lantz, E. M. Levesley, A. S. See Imperial Chem. Industries.

Levey, H. A., oil-resistant protective coatings, B., 1005. Composite [transparent waterproof] sheeting, (P.), B., 786.

Levi, A., convulsive action of glycerol, A., 757. Effect of hamolytic substances on blood-catalase, A., 1150.

Levi, A. A. See Boyland, E.

Levi, C., use of rayon flock mixed with cotton, B., 230.

Levi, G. R., yellow cuprous oxide, A., 438. and Baroni, A., structure and alterations of structure of NiS and NiSe, A., 669. Carbon obtained by dehydration of carbohydrate, A., 1217.
and Peyronel, G., crystallographic

structure of isomorphous compounds

(M^{IV+})P₂O₇, A., 669. and **Tabet**, M., action of chlorine and bromine on chlorites, A., 302.

Levi, H. See Hevesy, G. von.

Levin, A., hydrogen carbonate method of qualitative chemical analysis for cations, A., 949.

See also Essin, O. Levin, B. S., increase in hemolytic power of lecithin by saponin: detection of small quantities of saponin, A., 635.

and Lominski, I., cholesterol and the lytic power of bacteriophage, A., 1156. Attenuation of avian plaguo virus by X-rays, A., 1424.

and Piffault, C., radio-hemolysis and cholesterol, A., 105.

See also Rogozinski, A.

Levin, E. See Rowe, F. M. Levin, G. See Paget, M.

Levin, H. See Texas Co. Levin, H. L., and Patent & Licensing Corp., [aqueous] dispersions, (P.), B., 442.

Levin, L., and Tyndale, H. H., concentration and purification of the gonado-tropic substance in urine of ovariectomised and post-menopausal women, A., 1428.

Levin, M., and Basseehes, J. T., rubbercellulose mixture, (P.), B., 1114.

Levin, S. M., distillation of high-boiling substances by means of heated oil, B., 6.

Levina, R. J., and Trachtenberg, D. M., contact transfermations of allylcyclohexene, cyclohexylallene, and cyclohexylallylene, A., 1238. and Vinogradova, E. I., action of sodium

acetylide on cyclic ketones. I. Synthesis of 1-acetylenylcyclohexanol, A., 1246.

See also Zelinski, N. D.

Levina, S., Frumkin, A., and Lunev, A., influence of platinum on the adsorption characteristics of charcoal in solutions of electrolytes, A., 1063.

and Silberfarb, M., hydrogen overvoltage in non-aqueous solutions. I., A., 1467. See also Jermolenko, N.

Levina, Z. I. See Okatov, A. P.

Levine, I. M., and Texas Pacific Coal & Oil Co., vapour-phase [oil-]eracking apparatus, (P.), B., 681. Levine, M., Luebbers, R., Galligan, W. E.,

and Vaughn, R., ceramic filter media and high rates of filtration [of sewage], B., 1237,

See also Chargaff, E., and Charlton, D. R.

Levine, S., statistical treatment of strong electrolytes, A., 288.

Levine, V. E. See Sachs, A.

Lévinson, M. See Bounin, E.
 Levinson, M. S., dynamics of the symptoms of polyavitaminosis in dogs, A.,

Levinson, S. M., determination of coefficient of equilibrium for condensed (gas) systems, A., 1059.

Levitas, M. O. See De Kolosovski, N. A. Levitin, I. A. See Federov, P. I.

Leviton, A., and Leighton, A., viscosity relationships in emulsions containing milk fat, A., 286.

See also Leighton, A. Levitov, M. M., transformation of the pyrophosphate fraction in yeast cells, A., 522. Pyrophosphate of yeast cells. I. Behaviour of the pyrophosphate towards enzymes, A., 1025.

Levitsky, P. See Necheles, H.

Levitt, J., and Searth, G. W., frost-hardening with living cells. I. Osmotic and bound-water changes in relation to frostresistance and the seasonal cycle. II. Permeability in relation to frost-resistance and the seasonal cycle, A., 1304; B., 1116.

Levkopulo, N. See Likhusehin, K. P. Levón, M., prevention of timber discoloration; results of chemical dipping

methods, B.; 235.
Levschin, V. L., correspondence between absorption and luminescence spectra of dilute solutions of dyes. IV. Effect of temperature and solvents, A., 138.

See also Vinokurov, L. Levtschenko, V. V. See Rodionov, V. M.

Lévy, A. See Darzens, G.

Levy, B. F. G. See Hearman, J. Levy, C. C. See Westinghouse Electric &

Manufg. Co. Levy, E. B., feed flavour in butter; cor-

relation of pasture type and stage of growth with intensity of feed flavour, B., 120.

Lévy, G., nitration of 1-ethylnaphthalene, A., 62. Nitration of 2-ethylnaphthalene; synthesis of 2-ethyl-8-naphthol; synthesis of 6-ethyl-β-naphthol, A., 1101, 1104.

Levy, I. See Elsberg, C. A.

Lévy, J., fixation of alcohol on encephalon of rats with experimental alkalosis, A.,

Justin-Besancon, L., and Kohler, D., influence of $p_{\rm H}$ and of the alkaline reserve on the production and regression of experimental exophthalmia, A., 1141.

and Olszycka, L., biochemistry of choline and its derivatives. II. Biological determination of acetylcholine, A., 875.

See also Kahane, E., and Tiffeneau,

Levy, L. A., and West, D. W., luminescent properties of zinc sulphide in relation to X-rays, A., 11. Fluorescent screens for cathode-ray tubes for television and other purposes, B., 797. Fluorescent [zinccadmium sulphide] material, (P.), B.,

Levy, L. F. See Fox, F. W.

Lévy, Max, Mignon, S., and Netter, A., determination of the isoionic point of hæmoglobin and total serum-proteins, A., 1283.

Milton, enzymic histochemistry. XVII. Micro-determination of nitrogen, A., 914.

Lévy-Bruhl, M., and Cado, Y., antiseptic and bactericidal power of diacetyl, A.,

Lew, W. See Addis, T.

Lewcock, H. K., pincapple wilt disease and

its control, B., 386.

Lowers, G. R., and Nichols Eng. & Res. Corp., treatment of [oil-refinery] mineral absorbent material, (P.), B., 1031.

Lewi, (Miss) P. See Achmatowicz, O. Lewien, E., mechanisation of sampling in coal-washing, B., 529.

Lewin, A. B., volumetric determination of sodium, A., 695.

Lewin, A. E., and Makarević, O. B., determination of the chloride index, A., 228.

Lewin, A. I., influence of insulin on experimental lipæmia, A., 1302.

Lewin, I. See Kadykov, B. Lewin, J. See Baudouin, A.

Lewin, L., ranges of particles emitted by samarium, A., 1313.

Lewinsohn, M. See Tchakirian, A.

Lewis, A. H., effects of ammonium- and nitrate-nitrogen on growth of perennial rye grass, B., 515. Fertiliser value of some concentrated materials, particularly urea and guanidine and their nitrates and phosphates, B., 1222.

Lewis, A. J., absolute measurement of viscosity of liquid tin, A., 279. Lewis, C. See Docker Bros.

Lewis, C. H. See Urbain, O. M.

Lewis, D., volumetric determination of iodides by ceric sulphate; application of the indicator o-phenanthroline ferrous ion, A., 950.

Lewis, E., formation of coal with reference to its behaviour under heat and pressure,

B., 579.

Lewis, F., tank for non-septic oxidising treatment of sewage, (P.), B., 958.

Lewis, F. D., apparatus for recovering gold and other precious metals from milled ores and placer material, (P.), B., 330.

Lewis, G. B. See Fiske, A. H. Lewis, H. See Rudge, E. A.

Lewis, H. A. See Du Pont de Nemours & Co., E. I.

Lewis, H. B., chief sulphur compounds in

nutrition, A., 104. Brown, B. H., and White, F. R., metabolism of sulphur. XXIII. Influence of ingestion of cystine, cysteine, and methionine on the excretion of cystine

in cystinuria, A., 885. See also Bendaña, A.

Lewis, H. R., and Sprague-Sells Corp., washing, grading, and otherwise treating granular material, (P.), B., 129.

Lewis, J., rubber-containing bituminous compositions, (P.), B., 777.

Lewis, J. M. Sco Hess, A. F.

Lewis, J. R., and Simonsen, J. L., a- and β -camphylic acids, A., 993.

Lewis, J. S. See Dorman, Long & Co. Lewis, J. V., controllable sepia tones by

redevelopment, B., 77. Lewis, K. G., water-line corrosion, B., 501.

and Evans, U. R., connexion between soil resistivity and subterranean currents, B., 1098.

Lewis, L. L. See Teckemeyer, J. F. Lewis, L. W., drying of hygroscopic [carbohydrate-containing] material, (P.), B., 1013.

Lewis, M. R., and Geiling, E. M. K., survival and increase of adrenaline in tissue cultures of adrenal glands from chick embryos, A., 525.

See also Geiling, E. M. K., and Work, R.A.

Lewis, P. S., Lodder, L. A. J., and Nat. Smelting Co., Ltd., [colouring] treatment of zinc and zinc-containing metal surfaces, (P.), B., 553.

Lewis, R. C. See Rymer, M. R.

Lewis, R. D., and Fowler, E. D., influence of nitrogen fertilisers on reaction of Greenville sandy loam soil, B., 658.

Lewis, R. E. See Barnes, R. P. Lewis, R. H., and Hillmann, W. O'B., liquid asphaltic road materials, B.,

Lewis, Reginald H. See Dippy, J. F. J. Lewis, R. M. See Hall, B. V. Lewis, R. R. See Trevithick, H. P.

Lewis, S. J., problems and methods in

industrial spectroscopy, B., 127.

Lewis, S. R., Spink, L. K., Hagerman,
B. W., and Foxboro Co., cupola operation, (P.), B., 238.

Lewis, T., electromagnetic field theory, A., 7.

Lewis, W., growing and testing large single crystals of ice, A., 412.

Lewis, W. B., and Burcham, W. E., attempt to produce artificial radioactivity by an electron beam; the behaviour of newly made Geiger-Müller counters, A., 1173.

See also Cockcroft, J. D. Lewis, W. E. J., corrosion of steel in ship-

building, B., 743. Lewis, W. H., jun. See Kirk, E., and Page, I. H.

Lewis, W. K., application of physical data to high-pressure processes; practical approach in modern industry to problems on equation of state and equilibrium, B., 255.

Squires, L., and Sanders, C. E., evaporation of lacquer solvents, B., 160.

Squires, L., and Thompson, W. I., colloidal properties of clay suspensions, B., 1040.

Sec also Standard Oil Development Co. Lewis, W. K., jun., rectification of binary mixtures; plate efficiency of bubble-cap columns, B., 479.

Lewton, L. O., tobacco product; [removal of harmful products from the smoke],

(P.), B., 716. Lewy, F. H., and Gassman, F. K., hypothalamic nuclei in regulation of chloride and sugar metabolism. A., 236.

Ley, E. See Schiemann, G.

Ley's Malleable Castings Co., Ltd., Evans, W. T., and Peace, A. E., heat-treated cast iron, (P.), B., 415.

Leydens, P. See N. V. Philips' Gloeilampenfabr.

Leye, A., value of exhaust [gas] analysis in power vehicles, B., 354.

Leysaht, H. See Deiss, E.

Leyst-Küchenmeister, C., soaps, (P.), B.,

Leznova, N. S. See Drozdov, N. S. Li, C. H. See Lee, F. H.

Li, H., storage of proteins in liver, A., 749.

Li, N. See Sherman, A.

Li-Pin, K., spontaneous appearance of beri-beri symptoms in the mandarin duck (Aix galericulata, L.) kept in captivity, A., 1141.

Liaci, L., sulphur-mercury compounds and their action on blood, A., 515. Changes in the glutathione content of the blood after insulin treatment, A., 1159.

Lialikov, C. S., and Piskunova, V. N., physicochemical investigations of photo-

graphic emulsions, A., 1461. Liander, II., purification of soft humiferous

boiler feed-water, B., 527.

Liandrat, G., use of a selenium photoelectric cell for measurement of solar ultra-violet radiation near 3200 A., A., 181. Photo-electric phenomena at the surface of electronic semi-conductors, A., 1446.

Libbey-Owens-Ford Glass Co. See Drake, J. L., Goodwillie, D. H., Randall, J. W. H., Ryan, J. D., and Watkins, G. B.

Libbrecht, W., influence of the substrate on the respiration of and fermentation by yeast cells, A., 1300.

and Massart, A., oxidised/reduced glutathione ratio in acute oxidosis, A., 356.

Libby, E. F. See Lacy, P. B. Libby, W. F., absence of low-energy radiations from potassium and rubidium, A., 401.

and Latimer, W. M., absorption and scattering of neutrons, A., 1045.

and Long, E. A., effect of hydrocarbons at low temperatures on slow neutrons, A., 1314. Bond effect in the action of protons on neutrons, A., 1314.

Long, E. A., and Latimer, W. M., action of neutrons on heavy water, A., 1044.

Peterson, M. D., and Latimer, W. M., a-radioactivity of argon formed by radio-chlorine, A., 1441. See also Olson, A. R.

Libby, McNeill, & Libby, food product, (P.), B., 618.

See also Knowles, J. T., and Near, H. B.Liberalli, C. H., chemical individuality of the alkaloids of ergot of rye, A., 1003. Oxidation of sodium salicylate in solutions containing sodium bicarbonate, B., 667.

Libérato, S. N. See Papavassiliou, M.J. Liberman, L.Y., steel for high-pressure boilers, B., 411.

Libermann, D. See Carré, P.

Libowitzky, H. See Fischer, Hans.

Licata, F. J., aluminium stearate, B., 650. Licence, A. B. C., determination of the proportion of bitumen and tar in mixtures of the two, B., 773.

Lichatschev, V. G., determination of the freshness of milk (Morres number), B.,

855.

Lichatscheva, (Mlle.) A. I., and Lutschinski, G. P., viscosity of halogen compounds of the elements of group V of the periodic system, A., 1060.

See also Lutschinski, G. P. Lichoscherstov, M. V., and Aldoschin, T. D., introduction of halogen or thiocyanate into organic compounds by means of dichloropentamethylene-

tetramine, A., 58. and Alexeev, S. V., chloroalkoxy-derivatives of ψ -butylene as solvents, B., 181.

Alexeev, S. V., and Schalaeva, T. V., $\beta\gamma$ -dichlorobutane as a solvent, B., 10. and Petrov, A. A., chloroalkoxylation of olefines by action of chlorine in presence of alcoholic alkali, A., 453.

Lichtenfeld, A., and Schwarz, K., experiments with models on the theory of the

Kikuchi lines, A., 554, 784.

Lichtenstein, N., effect of enzymic dephosphorylation of cozymase on its action in the dehydrogenase system of peas, A., 636.

Liehtenwalter, M. See Gilman, H. Liehter, A. See Ruhemann, M.

Lichti, examination of benzol produced by the Still process, B., 727.

Lichtschein, J. See Groetzinger, G. Lichty, L. C., and Ziurys, E. J., engine performance with gasoline-alcohol, B., 1076.

Lichuschin, K. P., corrosive action of petroleum sulphonic acids and its prevention, B., 627.

Lida, E. See Baufi, R. Liddel, U. See Hendricks, S. B., and Hilbert, G. E.

Lieb, F., activation of silver by acids, A.,

Lieb, H., and Soltys, A., Pregl's absorption apparatus for micro-determination of carbon and hydrogen, A., 815.

Lieb, J. M. See Jackson, R. B.

Lieben, F., and Jesserer, H., biuret reaction of proteins, A., 1007.

Liober, Eugene. See Standard Oil Develop-

ment Co.

Lieber, Eugene (Brooklyn), and Smith, G. B. L., reduction of nitroguanidine. IV. Preparation of nitrosoguanidine by catalytic hydrogenation [of nitroguan-idine]. VI. Promoter action of platinic chloride on Rancy nickel catalyst, A., 321, 1237

Lieber, G. D., physico-chemical action of X-rays on the organism. V., A., 632.

Lieberknecht, K., changes in properties of steel wire on storage at room temperature or below, B., 196.

Liebesny, P., and Wertheim, H., promoting growth and activity of micro-organisms, (P.), B., 717.

Liebetruth, F. W., [solid] water colours, (P.), B., 652.

Liebhafsky, H. A., constitution of liquid zine amalgams, A., 280. Kinetic correlation of two reactions involving hydrogen peroxide; oxidation by chloramine-T and by chlorine, A., 802. Colorimetric determination of titanium in presence of bromine compounds, A.,

813. Liebscher, E. See Hausam, W. Liebscher, W. See Hönigschmid, R.

Lieck, H. See Lund, Helge.

Lieder, B., purification and subsequent chemical conversion of [wood] pulp, B.,

Liem, H. T., "purity-testing" for arsenie by the method of the Swiss Pharmacopæia V., A., 951.

Liempt, J. A. M. van, vapour pressure

of metals and their velocity of vaporisation in a vacuum, A., 21. Rates of vaporisation of metals in a gaseous atmosphere, A., 276. Relation between heat of transition and transition point of enantiotropic modifications, A., 276. Vapour pressure of casium, A., 557. Vapour pressure of barium, A., 1059.

and De Vriend, J. A., time of melting of thin fuses. II, A., 279.

See also N. V. Philips' Gloeilampenfabr. Lieneweg, F., accuracy of p_H measurements, A., 949.

Lienhardt, H. F. See Aubel, C. E., and Riddell, W. H.

Lienhart, J. See Woog, P.

Liepatov, S. M., and Putilova, I. N., lyophilic colloids. IX. Optical rotatory power of gelatin fractions, A., 1202.

Liere, E. J. van, gastric motility under low oxygen pressures, A., 1549.

David, N. A., and Lough, D. H., absorption of water from the small intestine at various degrees of anoxemia, A., 1399. Liesegang, R. E., supersaturation, A., 560.

Keeping properties of photographic images on paper, B., 77.

Lieser, T., cellulose xanthate, B., 586. and Leckzyck, E., constitution of cellulose xanthates. IV., A., 595.

and Thiel, R., carbohydrates. VII. Xanthate reaction of glucose, A., 592. Lieshout, A. K. W. A. van. See Cohen, E. Lieute, A., capillary action of tars and bitumens in road surfaces, B., 886.

Lifschitz, A. A. See Schtakelberg, I. I. Lifschitz, D. B. See Notkina, L. G. Lifschitz, E. See Landau, L.

Lifschitz, I., and Froentjes, W., photo-chemical behaviour of thiodiazolino derivatives, A., 1275.

Lifschitz, L. S. See Leites, S. M.

Lifschütz, I., determination of cholesterol. II., A., 219. Light, D. W. See Parks, G. S.

Lightbody, H. D., and Mathews, J. A.,

toxicology of Derris, B., 1013. See also Mathews, J. A.

Lightfoot, J. H. Seo Jessen, F. W. Lignon, W. S., solubility of applied nutrients in muck soils: composition and quality of certain muck crops as influenced by soil-reaction changes and

moisture conditions, B., 755.
Lihnell, D., chemical sterilisation humus for fungus cultures, A., 523.

Li Houang. See Cheng Da-Chang. Likhuschin, K. P., Masumjan, V., and Levkopulo, N., preparing synthetic acids by oxidising wide fractions of Sura-chanui fuel oil with air, B., 631.

Likov, A. V., thermal diffusion of moisture in peat, B., 305. Lilienfeld, A. See Wright, I. S.

Lilienfeld, J. E., and Ergon Res. Labs., Inc., electrolyte for use with filmed [aluminium] electrodes [in condensers], (P.), B., 240. Electrolytic condenser and electrolyte therefor, (P.), B., 418. Methods of effecting metal-refractory joints, (P.), B., 698. Electrolytic condenser, (P.), B., 699.

Lilienstern, M., differences in age of cells of water plants in relation to their

reducing powers, A., 121.
Lilienroth, F. G., production of soluble phosphates in the solid state, (P.), B., 19. Lillie, H. R., stress release in glass; phenomenon involving viscosity as a variable with time, B., 407. Lillie, R. S., Hinriehs, M. A., and Kosman,

A. J., influence of neutral salts on photodynamic stimulation of muscle,

See also Kosman, A. J. Lilliendahl, W. C. See Highriter, H. W. Lilly & Co., E., barbituric acid [derivative] and salts thereof, (P.), B., 395. [5-Ethyl-5-β-ethylhexyl]barbituric acid and salts thereof, (P.), B., 860.

Kharasch, M. S., and Legault, R. R., ergot preparation, (P.), B., 124. and Walden, G. B., therapeutic com-

pounds [for treatment of pernicious anemia], (P.), B., 124. Anti-anemic substance, (P.), B., 171.

Lilly & Co., E. See also Emerson, G. A., Kharasch, M. S., Shonle, H. A., Stuart, E. H., and Walden, G. B.

Lim, R. K. S., Ling, S. M., Liu, A. C., and Yuan, I. C., quantitative relation-ships between the basic and other components of pancreatic secretion, A., 1293.

Limarzi, L. R., and Murphy, I. G., amidopyrine and granulopænia; reappearance of granulocytosis in a case of recurring agranulocytosis after large doses of amidopyrine, A., 504.

Limaye, D. B., and Chitre, R. G., degradation of β -anisyland β -halogenoanisyl-glutarie acids to succinic acids through γ -butyrolactones and other reactions [thereof], A., 848.

and Kelkar, G. R., action of acetic anhydride on 2-acetylresorcinol; syn-

thesis of γ -resorcylic acid, A., 854. Limburg, H., and Patent & Licensing Corp., treatment of [bituminous] dispersions, (P.), B., 53.

See also Shell Development Co. Limmer, B. G. See Prideaux, E. B. R. Limpert, G. H., evaporating apparatus for liquids, (P.), B., 81.

Lin, F. See Huang, T. C. Lin, I. See Adolph, W. H.

Lin, T., determination of dielectric con-

stants of aqueous solutions of electrolytes by the Fürth ellipsoid method, Å., 934.

Lin, T. C. See Tseng, C. L.

Linch, F. W. See Imperial Chem. Industries. Linek, G., mixing and unmixing of silicate rock magmas, A., 50.

Lincoln, A., oil and gas separator, (P.), B., 535. Oil, water, and gas separator, (P.), B., 535.

Lincoln, A. T., and Hillyer, J. C., quantitative analyses of Liesegang rings, A.,

Lincoln, B. H., Byrkit, G. D., and Steiner, W. L., chemical constitution and film strength as determined by the Timken machine: chlorine compounds added to lubricants, B., 1188.

Lincoln, R., bricks, (P.), B., 103.

Lincoln Electric Co., electrodes for arc welding, (P.), B., 844.

Lind, G., morbific properties of ethylpetrol, B., 300.

Lind, S. C., symbols for the artificially radioactive elements, A., 1314.

and Livingston, R., adsorption of radon by glass, A., 676. Radiochemical synthesis and decomposition of hydrogen bromide, A., 688.

See also Hull, D. E.

Lindahl, P. E., and Öhman, L. O., oxidative metabolism in sea-urchins' eggs, A., 754.

and Örström, A., respiration-increasing action of potassium cyanide, A., 638. Lindars, H. See Lloyd, F. Lindberg, N. C., and Victor Chem. Works,

disodium phosphate, (P.), B., 318. Lindberg, S. C., and Centrifugal Eng. & Patents Corp., duplex centrifugal separator, (P.), B., 129.

Lindblad, A. R., [solution for] preserving wood, (P.), B., 277. Production of sulphur through reduction of gases containing sulphur dioxide, (P.), B., 369. Production of sulphur by reduction of sulphur dioxide, (P.), B., 495.

Linde, J. O. See Johansson, C. H. Linde, R., progress in production of oxygen

on a large scale, B., 368.

Linde Air Products Co., hardening of metal [steel] surfaces, (P.), B., 415. Removal of metal from the surfaces of [ferrous] metallic bodies, (P.), B., 1047.

and Boshkoff, G. J., oxygen of high purity, (P.), B., 275. and Dana, L. I., warm converters for

liquefied gases, (P.), B., 1073.

and Edwards, H. D., refrigerating systems employed in the liquefaction of gases, (P.), B., 432.

Jacobsson, W. J., and Harris, M. J., flame-machining of metal [e.g., steel], (P.), B., 1211.

and Wagner, R. L., cutting of metal by high-temperature heating agents and conditioning the cut surfaces, (P.), B., 1050.

See also Boshkoff, G. J. Lindeberg, B. See Virtanen, A. I. Lindegren, C. C. See Walton, L. Lindeke, H. F. See Bataafsche Petroleum

Lindemuth, L. B., and Moa Bay Co., highchrome steel from chrome iron, (P.), B., 1162.

Linden, A. van der. See De Voogd, J. G. Linden, B. A., culture media for acid products, A., 1424.

Linden, (Gräfin) M. von, and Feirabend, G. H. O., permanently antiseptic cellulose wad, (P.), B., 955.

Linden, T. van der, additive products of halogens and benzene derivatives. IV. Addition of chlorine and bromine to monohalogenobenzenes. V. Addition of chlorine to three trichlorobenzenes. VI. Addition of chlorine to the three tetrachlorobenzenes. VII. Addition of chlorine to penta- and hexa-ehlorobenz-ene, A., 714, 832, 975, 1098.

Lindenberg, A., micro-determination of acetone, A., 967.

See also Fontès, G.

Lindenfeld, K., function of halogens in hæmin, A., 487. Analysis and evaluation of inositolphosphoric acid preparations, B., 218.

Lindenfeld, L. See Kraszewski, W. Linder, G. C., influence of infection on action of parathyroid hormone in man, A., 903.

Linder, J. A. See Westinghouse Lamp Co. Linderstrøm-Lang, K., enzymie histochemistry; micro-determination of alkalis in tissue, A., 1166.

and Duspiva, F., enzymic histochemistry. XVI. Digestion of keratin by the larva of the moth Tineola biselliella, Humm. XVI. Digestion of keratin by larvæ of the clothes moth (Tineola biselliella, Humm.), A., 244, 759.

Holter, H., and Ohlsen, A. S., enzymic histochemistry. XIII. Distribution histochemistry. of enzymes in stomach of pigs as a function of its histological structure, A., 895.

and Ohlsen, A. S., distribution of urease in dog's stomach, A., 1298.

See also Hevesy, G. von.

Lindgren, H. O., and De Laval Separator Co., centrifugal separator, (P.), B., 256, 352.

Lindhard, J. See Buchthal, F.

Lindholm, H. R. V., chemical and physical constants of cod-liver oil and their alteration under varied conditions of storage, B., 509.

Lindhurst, R. W. See Hasler, M. F. Lindley, G., dedusting of coal, B., 258. Lindner, influence of plant spacing on yield and chemical composition of sugar beet, B., 900.

Lindner, E., iodoform odour of mineral water containing iodine, B., 670. Odour of iodoform in mineral waters contain-

ing iodine, B., 910.

Lindner, J. [with Rank, V.], microdetermination of carbon dioxide and hydrogen in elementary analysis; volumetric determination of carbon dioxide, A., 1220.

Lindow, C. W. See Kellogg Co. Lindquist-Risakova, E. V. See Sadikov,

Lindqvist, M., Lundqvist, D., and Westgren, A., crystal structure of Co,S, and of pentlandite (Ni,Fe),S, A., 1186.

Lindqvist, T. See Willstaedt, H. Lindsay, F. K. See Fink, G. J. Lindsay, G. A. Sec Hoyt, H. C. Lindsay, J. D. See Copson, R. L.

Lindsell-Stewart, L. See Rubber Producers

Res. Assoc. Lindsey, A. J., micro-electrolytic determination of bismuth and lead, and their separation by graded potential, A., 45.

and Sand, H. J. S., application of controlled potential to microchemical electrolytic analysis, A., 46.

Lindsley, D. B. See Rosenblueth, A. Lindsly, B. E., Bureau of Mines study of a " bottom-hole" sample from the Crescent Pool, Oklahoma, with regard to liberation of gas, expansion of the oil-gas mixture, and energy relations involved in flow, B., 966.

Lindsly, C. H., determination of sulphur in rubber compounds. I. Precipitation of barium sulphate in presence of picric acid. II. Sources of error in the determination of free sulphur in rubber compounds containing rapid accelerators and sulphur-bearing accelerators, B.,

Lindstaedt, F. F., and Hercules Glue Co., insecticides, etc., (P.), B., 564. Spray composition, (P.), B., 1224.

See also Lottooy, J. F.Lindstrand, T. See Hedvall, J. A. Lindwall, H. G. See Conn, W. R., Scudi, J. V., and Zrike, E.

Lineberry, R. A., relation of fertiliser and soil reaction to viability and production of strawberries, B., 516.

Linegar, C. R., Dille, J. M., and Koppanyi, T., barbiturates. XI. Methods of barbital research, A., 107. Barbiturate-picrotoxin antagonism, A., 107. Pharmacology of physostigmine, A., 376.

See also Argy, W. P.

Linen Industry Research Association, and Boffey, H., [mechanism for] production of pattern effects on fabrics, (P.), B., $120\bar{5}.$

Matthew, J. A., and Neill, H. R., crimping or serrating textile fibrous material, (P.), B., 188.

and Searle, G. O., retting of flax straw, (P.), B., 785.
Linetzkaja, Z. See Chajdukov, N.

Linford, H. B. See Bradt, W. E. Ling, A. W., and Peel, W. R., grass silage and silos, B., 522.

Ling, S. M. See Lim, R. K. S.

Lingane, J. J. See Kolthoff, I. M. Lingle, R. M., determination of free alkali in soft soap, B., 846.

Linhard, M., liquid ammonia as a solvent for inorganic compounds. III. Vapour pressure measurements, A., 560

Linhart, G. A., penetration of solar and cosmic raysinto fresh-water lakes, A., 306. Linicus, W., recent developments in production of light-metal castings, B., 1211. and Scheuer, E., fatigue strength of light-metal castings, B., 199.

Linitzki, V., application of Schtschukarev's method of determining densities to study of reaction of polymorphic transformation of β - into α -silver

and Gorski, V., X-ray tubes with rotating anti-cathode, A., 814.

Link, K. P. See Morell, S. Link, O. W. See Botti, E. C.

Link-Belt Co. See Lauenstein, C. F.

iodide, A., 166.

Linke, A. See Pick, H. Linke, R. See Braune, H., and Nehlep, G. Links, R., early diagnosis of carcinoma by exact chemical measurement, A., 364. Production of a product containing magnesium for therapeutic and industrial purposes, (P.), B., 860.

Linley, A. See Darwins, Ltd.

Linn, C. B., and Noller, C. R., catalysed reaction of magnesium ethyl bromide with ethyl bromide, A., 830.

Linn, D. E., and Internat. Patents Development Co., milk and chocolate suspension

[beverage], (P.), B., 522. Linn, D. R. See Pacini, A. J.

Linn, R., and Eureka Machinery Co. (Ltd.) Trust Estate, ore crusher, (P.), B., 48.

Linnell, W. H. See Albert, A., Edkins, R. P., and Hartley, F.

Linnett, J. W. See Thompson, Harold W. Linneweh, F., does creatinine occur in normal blood? A., 93.

Lins, K. See Wintgen, R.

Linscott, C. E., and United States Rubber Co., rubber articles, (P.), B., 289. ment of [rubber] latex, (P.), B., 705.

Linsert, O., 7-dehydrostigmasterol, A., 982. Linsley, E., and Sargent, F. G., mechanical timing unit for water-gas and other cyclic processes, (P.), B., 131. Linstead, R. P., and Millidge, A. F., fused

carbon rings. IX. Synthesis of stereo-isomeric 1-methylcyclohexane-1:2-dicarboxylic acids and of various methylcyclohexanecarboxylic-acetic acids, A., 846.

and Rydon, H. N., addition of hydrogen bromide to olefinic acids, A., 53.

See also Barrett, J. W., Hibbit, D. C., Imperial Chem. Industries, and Jones,

Linster, J. T. See Du Pont de Nemours & Co., E. I.

Linström, C. F. See Hammerschmid, H. Lintner, J. See Spätb, E.

Linton, R. W., Mitra, B. N., and Seal, S. C., antigenic structure of Vibrio cholcræ. VIII. Specific carbohydrate content and scrology of acid-soluble fractions,

Shrivastava, D. L., and Mitra, B. N., antigenic structure of Vibrio cholera. IX. Dissociation and changes in chemical structure, A., 761.

Singh, H., and Seal, S. C., vibrio filtrates, A., 761.

Lipinski, S. P., use of ammonium sulphate baths in viscose spinning, B., 14.

Lipkin, D., and La Lande, W. A., jun., resin. IV. Sublimed l-abietic acid, A., 1116.

Lipman, J. G., and Starkey, R. L., broad relationships between micro-organisms

and soil fertility, B., 292.

Lipmann, F., oxidative inactivation of cozymase with Schardinger enzyme preparations, A., 246. Fermentation of phosphogluconic acid, A., 1558. and Fischer, Albert, heparin, A., 226.

Lipp, J. W., and Osburn, M. R., aluminium sulphate as sticker for hydrated lime in sprays, B., 756.

See also Osburn, M. R.

Lipp, P., and Daniels, J., apobornylene from camphenilyl chloride, A., 607. [True constitution of camphenilyl and 4-methyl camphenilyl chloride], A., 1513.

Dessauer, H., and Wolf, E., ring-isomerisation in the camphene series, A., 1384.

Lippert, L. See Wagner, Gustav.

Lippmann, E., and Dachà, U., action of follicular hormone on bones. I. Variation in weight. II. Calcium content, A., 1302.

Lippmann, R. See Nachmansohn, D., and

Wajzer, J.

Lips, E., temperature variation of [magnetic] susceptibility of solid nitric oxide, A., 417.

See also Nippen, H.

Lips, E. M. H., and Sack, J., hardness tester for microscopical objects, A., 1355. Lipschitz, W., sympathetic regulation of normal blood sugar and metabolism of tissue-chlorides, A., 757.

Lipschütz, A., gonadotropic factors of climacteric urine, A., 644. Influence of cestrin injections on balance between the prehypophyseal gonadotropic hormones of the rat, A., 1156.

and Morales, E., effect of iodine on sexual organs and growth in the rat, A.,

372.

Lipshitz, G. G. See Engelhardt, V. A. Lipsitz, A. See Katz, Joseph.

Lipson, H., and Beevers, C. A., improved numerical method of two-dimensional Fourier synthesis for crystals, A., 1325. See also Beevers, C. A.

Lipson, H. C., and Mitchell, A. C. G., quenching of cadmium resonance radiation (3261) by hydrogen, A., 1310.

Lipták, P., determination of acid value of Secale cornutum, B., 858.

Liquid Carbonic Corporation. See Hunt, F. B., and Minor, H. R.

Liquid Oxygen Explosives, Ltd., and Lance, A. E., explosives, (P.), B., 910.

Lisbonne, M., and Seigneurin, R., bactericidal action of mercury, A., 641. Bactericidal action of mercury on B. coli in continuously flowing water, A., 900. Lisenko, P. D., cleaning of long-flame

Lisichansk coals by flotation with salts, B., 257.

Lishkevieh, M. I., and Kljachina, K. N., varietal peculiarities of proteins of wheat

flour, B., 425. Lisman, J. H. C., and Keesom, W. H., melting curve of oxygen to 170 kg. per

sq. cm., A., 20.

Lison, L., reaction of complex sulphuric acid esters, A., 453. Histochemical investigation of oxidases by the indophenol-blue reaction, A., 519. Histochemical localisation of chlorine in the gastric mucosa, A., 623. Metachromism: metachromatic dyes and chromotropic substances, A., 1001. Histochemical detection of mineral constitnents of tissues, A., 1532.

Lissák, K., and Hoyos, J., loss of protein from working heart muscle, A., 1143. See also Went, S.

Lisse, M. W. See Pearce, G. W., and Smith, Margaret E.

Lissitzin, M. A., and Alexandrovskaja, N. S., composition of the protamines of sturgeon, A., 500.

See also Perov, S. S. Lissman, M. A. See Internat. Precipitation Co.

Lissner, O. See Hilpert, R. S.

List, G. M., lime-sulphur for tomato psyllid control, B., 853.

Lister, F. V., bituminous emulsions, (P.), B., 63.

Lister, S. W. See under Lister Bros.
Lister, V. See under Lister Bros.
Lister, W., repairs to electric melting
furnaces, B., 891.

Lister Brothers, and Broad, L. F., laundry and textile drying machines, etc., (P.), B., 58.

Lister & Co., Ltd., R. A., and Vasseur, H. F. centrifuges, (P.), B., 304. Centrifugal separators for liquids, (P.), B., 816.

Listovnitscha, U. I., and Guluii, M. F., nitrogen metabolism in soya beanfeeding of horses, A., 513. Sec also Gnluii, M. F.

Lithographic Technical Foundation, Inc.

See Reed, R. F.Litovski, S. See Joffe, J. S.

Litterscheidt, W., thermal reactions in coking, B., 530.

Little, A. D. See Kleinschmidt, R. V. Little, B. H. See Hercules Powder Co.

Little, E., fusion process [for treating phosphate rock], (P.), B., 592.

Little, Inc., A. D., oiticica oil, B., 749. Littlefield, J. B. See Yant, W. P.

Littleton, J. T., effect of heat treatment on the physical properties of glass, B., 1093.

and Corning Glass Works, [glass] filter, (P.), B., 147.

and Wetmore, W. L., electrical conductivity of glass in the annealing zone as a function of time and temperature, B., 1040. See also Corning Glass Works.

Littmann, E. See Goldschmidt, S., and Hilpert, R. S.

Littmann, E. R., mechanism of diene synthesis, A., 1115.

See also Hercules Powder Co.

Littmann, H., influence of elastic strains on the alternating current magnetisation curve, A., 1187.

Littooy, J. F., Lindstaedt, F. F., and Hercules Glue Co., insecticidal or fungicidal composition, (P.), B., 1118.

Litvinov, N. D., mol. wt. of fused yellow phosphorus, A., 786.

and Melnikova, A. I., viscosity and density of carbamide solutions, A.,

Litwan, F. See Karrer, P. Lityński, T., injurious effect of extra large applications of phosphorus on oats, B., 659.

nger, A., and Johnson, T. B., pyrimidines. CLIV. Pyrimidine side-Litzinger, chain reactions useful for synthesis of 1:3-diazines related structurally to vitamin-B₁. CLV. Synthesis of thyminylamine and its conversion into uracil, A., 1523.

See also Johnson, T. B. Litzner, S. See Franke, K. Litzow, K., and Brocks, G., influence of composition on brown coloration of glasses by sulphur, B., 146.

Liu, A. C., co-operative action of sympathetic nerve impulses, adrenaline, and sympathin on the nictitating membrane of the cat, A., 239.

and Rosenblueth, A., reflex liberation of circulating sympathin, A., 526. See also Lim, R. K. S.

Liu, C. See Sun, C. E. Liu, D. Y., and Yang, C. S., chemical composition and vitamin-C content of liang-hsu (Dioscorea cirrosa, Lour.?), A., Ĭ033.

Liu, P. N. See Cheng, F. W. Liu, S. H., and Chu, H. I., optimal diet in promoting nitrogen gain in nephrosis, A., 366.

See also Chou, S. K., and Chu, H. I. Liu, T. K. See Woo, S. C. Liu, T. Y. See Tien, C. C.

Liu, Y. P., pipette for measurement of aqueous solutions, A., 446.

and Wei, T. C., hydration rate of methylethylethylene [β-methyl-∠la-butene] in aqueous solutions of acids, A., 1210.

Liuban, A. P., and Basov, V. T., smelting Kusinsk titaniferous magnetites with charcoal and Kuznetzk coke, B., 413.

Liubimova, M. See Engelhardt, V. A. Liubitzki, K. K. See Zelikman, I. F. Liubomudrov, V. F., condensation of

dihydroxydiethylamine with potassium cyanide, formaldehyde, benzaldehyde, A., 1106. Condensation of β -hydroxypropylamine with potassium cyanide, benzaldehyde, and cyclohexanone, A., 1106.

Liutenberg, A. I., and Mirer, E. A., determination of cellulose, B., 184.

Livak, J. E. See Johnson, T. B.

Liverpool Electric Cable Co., Ltd., and Hughes, A. E., rubber compositions and articles, (P.), B., 896.

Livesley, B. H. Sec Imperial Chem. Industries.

Livingood, J. J., deuteron-induced radioactivities, A., 1315.

and Seaborg, G., deuteron-induced radioactivity in tin, A., 1315.

and Snell, A. H., search for radioactivity induced by 800-kilo-volt electrons, A.,

Livingston, M. S., and Evans, R. D., correlation of nuclear disintegration processes, A., 1315.

and McMillan, E., radioactive oxygen, A., 403.

See also Weekes, D. F.

Livingston, N. See Roberts, R. H.

Livingston, R., theoretical interpretation of radiochemical reactions via molecular clusters, A., 1078.

and Schoeld, E. A., catalytic decomposition of hydrogen peroxide in a bromine-bromide solution; effect of light on the steady-state rate, A., 1077. See also Lind, S. C.

Livingston, S. K., maggot extract, (P.), B., 1178.

Livingston, S. M. See Evans, R. D.Livon, J. See Violle, H.

Livschitz, I. A., and Nazarov, V. G., determination of alcohol in unrectified butadiene, B., 732.

Livschitz, M. J. See Horovitz-Vlassova, L, M.

Livschitz, S. E. See Moldavski, B. L. Livschitz, S. S. See Uschakov, M. I. Livschitz, V. D. See Kamzolkin, V. P. Lizèe, D. M. F. See Jean, F. P. L.

Ljamin, N., utilisation of sulphur residues at the Karakum and Darbazin autoclave works, B., 641.

Ljung, H. A. See Dobbins, J. T.

Llopis, L., cholesterolæmia and tuberculosis, A., 884.

Lloyd, D. J. See Wrinch, D. M.

Lloyd, E. See Lowry, T. M. Lloyd, F., and Lindars, H., rotary furnaces, kilns, dryers, etc., (P.), B., 1184.

Lloyd, H. G., reduction of permeability of structures and granular masses, (P.), B., 321. Consolidation of granular mineral

masses, (P.), B., 321.
Lloyd, J. U., Ostwald, Wolfgang, and Erbring, H., measurement of certain mechanical properties of pharmaceutical and technical creams, B., 858.

Lloyd, J. W., and Decker, S. W., refrigeration of packages of peaches, B., 296. Lloyd, P. See Dieterichs, W.

Lloyd, T. E., and Dwight & Lloyd Sintering Co., sintering [cement clinker], (P.), B., 1042.

Lloyd, V. E., gonadotropic hormones in treatment of sterility in man, A., 643.

Lloyd, W. V. See Lowry, T. M. Le, T. S., and Ts'ai, L. S., effect of time of heating and temperature on cracking of cottonseed oil, B., 1003.

Lo, T. Y., effect of adenine fed to rats on a diet deficient in vitamin- B_4 , A., 390. Supplementary relations between proteins of mottled gram beans and certain other cereals, B., 217.

Lo, Y. J. See Kao, T. Y. Lo, Y. T., nutritive value of vegetable oils in N. China, B., 218.

Loach, J. V. See Beeston, A. W.

Lob, G., NN'-dibenzylethylenediamine, A.,

Lobanov, D. I., and Bikeva, S. V., extraction of soluble substances during cooking of meat, B., 41.

Lobb, D. E. See Hathaway, M. L.

Lobeck, H. See Erlenmeyer, H.

Lobel, L., method of testing [photographic] papers to be used for copying by contact with reflected light, B., 77.

Lobley, A. G. See Birmingham Electric Furnaces, Ltd.

Lobe, R. See Rossi, L.

Lobstein, J. E., and Flatter, M., lipoid phosphorus and phosphatides of cow's milk, B., 615.

Lobry de Bruyn, C. A., corrosion phenomena with metals under mechanical stress, B., 697.

Lobunetz, M. M., determination of magnesium in glass by means of 8-hydroxyquinoline, B., 884.

See also Perie, M. I.

Locatelli, P., effect of thyroidectomy in poisoning by diphtheria toxin, A., 365. Loch, P. See Lockemann, G.

Locher, G. L., construction and use of

Geiger-Müller counters, A., 1084. See also Rumbaugh, L. H., and Swann, W, F, G

Lochhead, A. G., and Johns, C. K., sterilisation of dairy utensils, B., 953.

and Jones, A. H., numbers and types of micro-organisms in frozen vegetables and fruits, B., 472.

and Thexton, R. H., nitrogen-fixing bacteria in soils of different fertiliser

treatment, B., 658. Lochte, H. L. See Barrick, L. D., and Zimmerman, B. G.

Lochte-Holtgreven, W., pressure effect on predissociation, A., 411. Lochvitzkaja, A. P. See Tschufarov, G. I.

Lock, G., elimination of the aldehydic group as formic acid from aromatic aldehydes. IV. 2-Chloro-6-fluoro- and 2:6-difluoro-benzaldehyde, A., 1509.

and Kempter, F. H., derivatives of diphenyl ether. II. Monoaldehydes,

and Nottes, G., Cannizzaro reaction. IV. Halogeno-derivatives of m-hydroxybenzaldehyde. V. Derivatives of 3:5dimethoxybenzaldehyde, Α.,

Locke, F. W., and Coast Mining Co., recovery of [precious] metals, (P.), B.,

Lockemann, G., Kjeldahl flasks and other apparatus of arsenic-free glass, A., 46.

Arsenic combustion tubes, A., 697. and Loch, P., shaker with lengthwise and cross motions, A., 698.

and Ulrich, W., germ-injuring action of thiocyanates. II. Germicidal action of alkaline thiocyanate solutions, B.,

Locker, K. See Koller, G. Lockett, W. T. See Ardern, E. Lockhart, N. J., and Lathrop Investment Corp., hydrogenation process of oil refining, (P.), B., 778.

Lockie, L. M., and Hubbard, R. S., gout; changes in symptoms and purine metabolism produced by high-fat diets in four gouty patients, A., 1141.

Lockwood, L.B. See Ward, G. E. Locsin, C. L., purity difference between first-expressed cane juice and syrup, B.,

Locuty, P., ternary system sulphuric acidammonium sulphate-water; application to ammonia recovery in coking practice, B., 1090.

Lodder, L. A. J. See Lewis, P. S.Lode, G., composition of mink fat, B., 158. Lodeesen, H.J. See Tanner, R.R.

Loder, D. J., and Whitmore, F. C., pre-paration of a-naphthoic acid, A., 330.

See also Du Pont de Nemours & Co., E. I.

Lodge, F. See Imperial Chem. Industries. Lodge-Cottrell, Ltd., and McKee & Co., A. G., electrical precipitation of suspended particles from gases, (P.), B., 940. Loeb, C. M., jun. See Climax Molybdenum Co.

Loeb, L., Saxton, J., and Hayward, S. J., relationship of the anterior pituitary gland to thyroid and ovary, A., 1563. See also Kunkel, P., Moore, C., Morrin,

K. C., and Thurston, E. W.

Loeb, L. B. See Varney, R. N. Loeb, R. F., Atchley, D. W., and Stahl, J., rôle of sodium in adrenal insufficiency, A., 1140.

Löbering, J., micro-hydrogen electrode, A., 46. Kinetics of the reactions of polymeric aldehydes. I. Rate of solution of paraformaldehyde, A., 1232.

and Jung, K. P., kinetics of the reactions of polymeric aldehydes. II. Reaction of paraformaldehyde with cyanide, A., 1362.

Loefer, J. B., effect of certain nitrogen compounds on growth of Chlorogonium and Chilomonas, A., 113. Relation of $p_{\rm H}$ to growth of Chilomonas and Chlorogonium, A., 382.

Loeff, M. R. van der, results of the Dutch cosmic-ray expedition 1933. VIII. Ionisation balance in the atmosphere, A., 1175.

See also Clay, J.

Löffler, H., determination of duration of incandescence of small particles of solid fuels, B., 1026.

Löffler, J., is the rose colour [of glass], due to selenium, a tempering colour? B., 146.

Löffler, W., and Nanz, H. J. M., obtaining useful products from fish and fish refuse, (P.), B., 857.

Löfgren, N., tryptophan and chlorophyll in the leaves of seedlings of barley mutants, A., 1165. Löfquist, K. H. S., treatment of alloys con-

taining iron and chromium, (P.), B., 415.

Löhberg, K. See Laves, F. Löhner, H., quantum-like loss of velocity of slow electrons and effective crosssection in molecular gases, A., 4.

Löhnis, M. P., boron requirement and boron content of crops, B., 341.

Löhr, Hanns, metabolism of iodine. I. Blood-iodine. II. Influence of ascorbic acid on blood-iodine. III. Uptake from surrounding air by man, A., 358, 1291.

Löhr, Hans. See Brückner, H.

Loehwing, W. F., and Bauguess, L. C., plant growth effects of heteroauxin applied to soil and plants, A., 1164.

Loeper, M., Bioy, E., Perrault, M., and Varay, A., cedema and glyoxaline compounds, A., 1020.

Chabrol, E., Cottet, J., and Lesure, A., renal and hepatic climination of ascorbic acid, A., 1032.

Cottet, J., and Lesure, A., ascorbic acid in the liver during hepatitis, A.,

Duchon, L., Lesure, A., and Thomas, A., curve of production of glyoxalines related to histamine in some bacterial cultures, A., 899.

and Lesure, A., level of certain phenylamines ("tyramine equivalent") in hypertensive sera, A., 1008.

Lesure, A., Bioy, E., and Perreau, P., calcium precipitation in the pancreas, A., 363.

Loepsinger, A. J., Trafton, W. M., and Amer. Moistening Co., hygroscopic [indicating] material, (P.), B., 257.

Loesche, E. C., and Berz, M., pneumatic

separators, (P.), B., 3.
Loesecke, H. W. von, Mottern, H. H., and Pulley, G. N., wines, brandies, and cordials from citrus fruits, B., 1174.

Loeser, A., anti-thyrotropic substance in blood and carbohydrate metabolism of the liver, A., 387.

Sec also Müller, Reinhart.

Löther, A. See Enders, C., and Schild, E. Loetscher, E. C., uniting synthetic resin and metal, (P.), B., 161.

Loevenich, J. See Darapsky, A.

Löw, E. See Müller, W. J. Loew, F. See Pringsheim, H. Löwe, E., [optical] emissivity of nickel, A., 275.

See also Gerloff, G.

Löwe, F., optics in the service of the chemical engineer, B., 719.

Loewe, S., multiple electron-discharge devices, (P.), B., 507. Löwenbach, H. See Fischer, M. H.

Löweneck, M. See Täufel, K.

Löwenhielm, C. G. H., discharge means for ball or rod mills, etc., (P.), B., 960.

Löwenstein, L., packing of acid sulphates and similar compounds, (P.), B., 738. Packing of solid substances having sulphuric acidity, such as bisulphates, (P.), B., 1093*.

Loewinson-Lessing, F., composition of

tectites, A., 49.

Löwy, J., chronic carbon tetrachloride poisoning, A., 1554.

Loewy, P. See Goldhammer, H.

Loftheim, T. B., road dust, B., 886. Lofton, W. M., jun., Burroughs, S. G., and Pennsylvania Coal Products Co.,

diarylamine-haloarsines [halogenodiarylaminoarsines], (P.), B., 444.

Loftus, F. H., regenerative furnace, (P.), B., 528. Non-reversing open-hearth

furnace, (P.), B., 1211.
Logan, F. P. See Gilfillan, F. A.
Logan, K. H., specifications for protection of underground pipes, B., 205. Soil-corrosion studies, 1934; rates of loss of weight and pitting of ferrous specimens, B., 792.

Logan, W. B. See Texas Co. Logemann, H. See Thiel, A.

Loges, A. C., composition for treating [finished] leather goods and its application, (P.), B., 1058.

Loghry, L. 1., and Superior Cement Corp., fuel briquette, (P.), B., 135.

Loginov, N., and Klevitzki, purification of diffusion syrup with burnt dolomite: production of caustic magnesite, B., 854.

See also Kagnaer, J. M.

Logue, P., Pritchard, W. N., jun., and Swann Res. Inc., chlorinated alkaline silicate; [detergent], (P.), B., 494.

Logunova, D. E. See Kuznetzov, V. I. Lob, V. T., and Tal, T. Y., blood in cholera: urine analysis, A., 1015.

Lohaus, H., isochavicic acid, A., 1386. and Gussmann, W., αβγ-tribromocinnamylacetie [-tribromo-δ-phenyl-Δγ-pentenoic] acid, A., 1107.

and Widmaier, O., ψ -galactal, A., 56.

Lohmann, H. See Staudinger, H. Lohmann, K., constitution of adenylpyrophosphorie and adenosinediphosphoric acid, A., 53. Fission of adenylpyrophosphoric and arginine-phosphoric acid in crab muscle, A., [Constituents of] octopus muscle; isolation of adenylpyrophosphoric acid and argininephosphoric acid and their behaviour, A., 1011.

and Schuster, P., adenine nucleotido in tissues. II. In heart muscle, A.,

Sec also Meyerhof, O.

Lohmann, O. F., and Superior Trademark Manufg. Co., [water-soluble] transfer ink, (P.), B., 30.

Lohmann, R., enzymes of lactic acid fermentation and glycogenolysis, A.,

Lohmeyer, A. See Kanitz, H. R.

Lohr, J. M., [nickel-chromium] clectricresistance alloys, (P.), B., 504. and Driver-Harris Co., [nickel] alloys,

(P.), B., 891, 1101. Lohrengel, W. Sec Districh, K. R.

Lohse, H. W., use of the spectrograph in industry, B., 479. Soya bean as a food product and industrial raw material, В., 903.

Loidolt, K. See Dafert, O.

Loiseau, R., aluminium bronzes, B., 840. Loiseleur, J., azotæmia and chloræmia in vitro, A., 93. Azotæmia and chloræmia in course of histolysis, A., 93. Blood modifications in cancer, A., 230. Action of radioactive substances on proteins, A., 301.

Loiseleur, M., formation of thio-derivatives of proteins using carbon disulphide, A.,

Lojander, W., determination of vitamin-C content of fresh milk, A., 1535.

Loleit, H. See Paneth, F. A. Lolkema, J. See Strating, J.

Lom, A. von, drying plants [for granular

material], (P.), B., 175. Lomakin, B. A., and Ostachevskaja, A. L., spectral-analytical determination of antimony in copper, B., 889.

Lomax, R. See Whytlaw-Gray, R. Lombard, V., Eichner, C., and Albert, M., permeability of palladium to hydrogen; loss of diffusion power of pure palladium when heated; regeneration of poisoned palladium, A., 790.

Lominski, I., inactivation of bacteriophage

by ascorbic acid, A., 1029. Spontaneous reappearance of lytic activity of bacteriophage inactivated by heat, A., 1029.

See also Levin, B. S.

London, F., superconductivity and other low-temperature phenomena, A., 147. Condensed helium at absolute zero, A., 667. Electrodynamics of macroscopic fields in superconductors, A., 929. Magnetic fields in superconductors, A., 929.

See also Laue, M. von.

London, H., phase-equilibrium of superconductors in a magnetic field, A., 277. Electrostatic behaviour of superconductors, A., 1056.

See also Lane, M. von. London, M. E., Shadanovskaja, A. P., Gontscharenko, K. M., and Berger, E. B., rapid determination of pyritic sulphur

and sulphate sulphur in coal, B., 5. London Aluminium Co., Ltd., and Burford, W. A., plating of aluminium, (P.), B., 506.

Lone Star Gas Co. See Bacon, T. S. Long, A. See Audrieth, L. F.

Long, B., mechanical strength and light transmission of glass bricks for glazed ferroconcrete, B., 546. Properties of "multicellular" glasses, B., 1152.

Long, C.P. See Irwin, W.H.

Long, E. A., and Gulbransen, E. A., data of state of phosphine at low pressures and from 190° to 300° abs., A., 418.

and Kemp, J. D., entropy of deuterium oxide and the third law of thermodynamics; heat capacity of deuterium oxide from 15° to 298° abs., A., 1453.

See also Libby, W. F.

Long, E. R., Seibert, F. B., and Aronsen, J. D., standardised tuberculin (purified protein derivative) for uniformity in diagnosis and epidemiology, A., 367.

Long, F. A. See Olson, A. R. Long, G. E. See Bell Telephone Labs. Long, J. W., Huffman, C. F., and Duncan,

C. W., vitamin-D requirements of calves when natural milk is the sole source of the antirachitic factor, A., 1430. Long, T. H. See Westinghouse Elec. &

Manufg. Co.

Long, Z., and Pittman, M. S., utilisation of meat by human subjects. II. Nitrogen and phosphorus of round and liver of beef, A., 103.

Longacre, A., energy distribution of cosmic rays, A., 1441.

Longehambon, H., characteristic properties of palygorskites, A., 1484.

and Migeon, G., sepiolites, A., 1227. Longden, E. See Tullis, D. A.

Longenecker, H. E., and Haley, D. E., nature and specificity of Ricinus lipase, A., 243.

Longenecker, L. S., metallurgical furnace, (P.), B., 997.

Longineseu, G. G., and Prundeanu, I. I., determination of hydrobromic acid in presence of hydrochloric acid, A., 693. Rapid and exact transference of a precipitato to a filter, A., 698.

Longmuir, IV., white spots on [rubber] proofings, B., 945.

Longo, G., and Randone, G., dioximes.

CXIV., A., 1001. Longwell, B. B., and Hill, R. M., modified Rehberg burette for use with titrating solutions which react with mercury, A., 182.

See also Crabtree, D. G.

Lonsdale, K., magnetic anisotropy of resorcinol, A., 786.

Lonsdale, T., isolation of long single silk

filaments, B., 93.

Lonza Elektrizitätswerke & Chemische Fabrik Akt.-Ges., pentaerythritol, (P.), B., 263.

and Lonza-Werke Elektrochem. Fabr. G.m.b.H., purification of nitrobenzene, (P.), B., 360.

Lonza-Werke Elektrochemische Fabriken G.m.b.H. See Lonza Elektrizitätswerke & Chem. Fabr. A.-G.

Loofbourow, J. R. See Heyroth, F. F. Looker, C. D., uses of sodium chloride, B., 832.

Loomis, A. G. See Ambrose, H. A., and Lawton, H. C. Loomis, F. W., and Brandt, W. H., band

spectrum of OH+, A., 267. See also Kusch, P.

Loomis, H. P., and Silmo Chem. Co., increasing the vitamin content of vitamin-bearing oils, (P.), B., 1216.

Loomis, N. E. See Standard Oil Development Co.

Loomis, W. E., translocation of nitrogen in woody plants, A., 1432.

and Noecker, N. L., petroleum sprays for dandelions, B., 387.

Loon, J. van, perilla oil, B., 419, 509. Purpose and importance of priming paints, B., 701.

See also Smit, W. C., and Steger, A. Loop, W. See Schlubach, H. H.

Loos, H. O., treatment of epidermophytosis of feet and hands with benzoic acid preparations, A., 1288.

Loos, S., composite [copper-silver-gold alloy] dental plates, (P.), B., 1212.

Loose-Wiles Biscuit Co., cereal food product [fibrous biscuits], (P.), B., 218.

Loosen, K. See Zintl, E.

Lopatto, E. K., oxidation of sulphur dioxide in the liquid phase, B., 641.

López, R. C., detection of small amounts of bromide in sodium chloride, A., 176. Colour reactions of organic acids, A., 744. Differentiation between goat's and cow's milk and investigation of a mixture of both, B., 1175.

López de Azcona, J. M. See Piña de Rubies, S.

Lopez Ferrer, F. A., invert sugar production direct from cane, B., 711.

Lopoukbin, E., properties of radioactive series, A., 401.

Lora y Tamayo, M., blood-sugar. II. Reduction values of tungstate and mercuric filtrates; existence of a supposed glucose ester. I., A., 1401.

and Blanco, J. R., phosphatases. II. New preparation of a phosphatase

from bone, A., 895.

and Segovia, F., phosphatases. I. Reaction mechanism of phosphatase from bone, A., 895.

Lorand, E. J. See Hercules Powder Co. Lorch, A. E., chemical polarisation of the hydrogon electrode by oxygen and the problem of electrolytic corrosion protection, A., 1342.

Lord, F., and Wilby, A. C., jun., beating engines used in production of paper,

etc., (P.), B., 1147.

and Wilby, A. C., jun., grinding or refining machines for paper pulp, (P.), B., 270.

Lord, R. C., jun., Raman spectrum of hexadeuterobenzene, A., 269.

Lorenz, A. W., porosity in leaded bronze bushings, B., 325.

Lorenz, H., measurement of small rapidly changing gas volumes, A., 1084.

Lorenz Akt.-Ges., C., iron cores for induction coils, (P.), B., 936.

Lorey, C., the neutron and structure of the atomic nucleus, A., 1442.

Lorge, I. See Sattler, L.

Lorig, C. H., and Dayton, R. W., modification and its relation to the properties of non-ferrous alloys, B., 414

Gillett, H. W., Kinnear, H. B., and Copper & Brass Res. Assoc., treatment

of steel, (P.), B., 152.
Gillett, H. W., Kinnear, H. B., Smith, Cyril S., and Copper & Brass Res. Assoc., treatment of ferrous alloys,

(P.), B., 152. Lorig, E. T., and Amer. Sheet & Tin Plate Co., cold-reduction [rolling] of [ferrous] metals, (P.), B., 152.

Loring, F. H., centrifugal spraying machines [for impregnation of solids], spraying (P.), B., 480.

Loring, H. S. See Stanley, W. M. Loring, R. A. See Green, J. B.

Lorne, H. T., adsorption of bitumen and its constituents by certain natural and treated earths, B., 966.

Losada, J. See Kotin, C. M.

Losana, L., variation of volume of elements in act of fusion. I., A., 21. Fluidity of slag in steel refining. II. Removal of phosphorus, B., 195. Contraction of aluminium and its alloys during solid-

ification, B., 550.

Losch, H. See Pfützer, G.

Lose, J. E., and Watson, R. H., openhearth slag utilisation, (P.), B., 279.

Losee, D. W., and Johnson-Losee Corp., [water- and fire-proofed] regenerated cellulose sheet or film, (P.), B., 1202.

Losev, I. P., Petrov, G. S., Andrianov, K. A., and Panasiuk, P. I., utilisation of wood generator-gas tar for preparation of plastic masses, B., 336. See also Davankov, A. B.

Losev, K. I., and Virska, M. G., treatment of sulphur ores with chlorine, B., 641. Loshakov, A. See Dunn, M. S.

Loskiewicz, L. [with Gouschlbauer, G., Nosowicz, M., Hayto, Z., and Podezaski, B.], influence of annealing on the structure, Brinell hardness, and tensile properties of cold-rolled brass (Cu 67%, Zn 33%), B., 1210.

Lothian, (Miss) O. M. See Baker, IV. Lothrop, R. E., detection of adulteration of honey with commercial invert sugar, B., 761.

and Paine, H. S., processing honey, B., 761.

Lothrop, W. C. See Fieser, L. F.

Lotmar, R., digestion and utilisation of starch by the honey bee, A., 887.

Lotmar, IV., structure of layor lattices, A., 15

and Feitknecht, W., alterations of the ionic distances in hydroxyl layer

lattices, A., 1450.
and Meyer, K. H., fine structure of crystallised caoutchoue, A., 1451.

See also Feitknecht, W., Iterson, G. van, jun., Magnus-Levy, A., and Meyer,

Lotoschnikov, M. K., and Schtschitkov, V. K., utilising spent clay from the contact treatment of oils, B., 626.

Lott, W. A., and Christiansen, W. G., new type of hypnotic amide; diethylacet-Bketopropylamide, A., 1096. Bacterieidal and bacteriostatic value of colloidal cadmium proteinate, B., 523.

and Squibb & Sons, E. R., divinyl ether, (P.), B., 972.

See also Coles, H. W., and Moness, E. Lottermoser, A., composition of soaps and their action in the wash, B., 284.

and Giese, E., measurements of surface tension of solutions of potassium and lithium salts of higher fatty acids by the ring method with exclusion of atmospheric carbon dioxide and with special regard to other disturbing influences. I. and II., A., 26, 155.

and Hessling, G. von, kinetic investigations by means of the photo-electric cell of the decomposition of sodium mercury sulphide by water and of sodium tungstate by excess of strong acids, A., 803.

Loudon, J. D., action of sulphinates on 2:4dinitrophenylsulphones, A., 461.

Lough, D. H. See Liere, E. J. van. Loughlin, J. F., production of [n-]butyl alcohol and acetone by fermentation, (P.), B., 295. Manufacture of solvents by fermentation, (P.), B., 343.

Loughridge, D. D., and Trueblood, H. C., organic liquids suitable for cloud expan-

sion work, A., 306.

Louis, R., and Larralde, [distillation of] mineral oils, B., 355.

Laurent, and Metrot, stability of fuel oils, B., 1077.

Louisville Club, oiticica as a varnish oil, B., 648.

Loumiet et Lavigne, J., centrifugal separators, (P.), B., 673.

Lounsbury, H. I. See Shell Development

Louros, N. C., detection of histidine in urine as a reaction for pregnancy, A.,

Louveau, G., "rambiazina" Madagascar oil, B., 475. Distillation water of flowers and aromatic plants, B., 1128. Louw, J. G. See Du Toit, P. J.

Love, W. H. Seo Payne-Scott, R. Lovelace, F. E. See Carpenter, D. C. Lovell, A. C. B., electrical conductivity of thin films of rubidium on [pyrex] glass surfaces, A., 665.

Lovell, W. G. See Glasebrook, A. L. Loveluck, R. J. See Imperial Chem. Industries.

Lovern, J. A., fat metabolism in fishes. VIII. Changes in fat of ripening salmon eggs. IX. Fats of some aquatic plants. X. Hydrogenation in the fat depôts of the tunny, A., 234, 630, 1544.

See also Hilditch, T. P.

Lovett, M., and Garner, J. H., strength of sewage, B., 862.

Low, G. R., jun. See Beebe, R. A. Low, K. S., laminated safety glass, (P.), B.,

Temperature Carbonisation, Ltd., Low Bristow, W. A., and Postlethwaite, J. P., settings of retorts for use in distillation of solid carbonaceous substances, (P.), B., 582.

and Flack, N., treatment of ammoniacal liquors, (P.), B., 533.

Low Temperature Processing Co. Scc Zorn, W. M.

Lowe, A. See Heilbron, I. M. Lowe, E. W., [photographic] film processing, B., 429.

Lowe, J. T., and Steenbock, H., cereals and rickets. VII. Rôle of inorganie phosphorus in calcification on cereal diets, A., 1161.

Lowe, S. P., concentrator and cyanide plant of the Hudson Bay Mining and Smelting Co., Ltd., B., 413.

Lowe, W., proofing of animal fibres against moth larvæ, mould, and rotting, (P.), B.,

Lowe, W. G., and Hamilton, C. S., arsenicals containing the furan nucleus. II. Action of chlorine; substituted furan

arsenicals, A., 217.
Lowndes, H. See United Wire Works

(Birmingham), Ltd. Lowry, A. S., covering for rollers of machines employed in preparation of textile fibres for spinning, (P.), B., 450.

Lowry, C. D., jun., use of inhibitors in gasoline, B., 581.

See also Morrell, J. C., and Universal Oil Products Co.

Lowry, E. F. See Millis, W. T., and

Westinghouse Elec. & Manufg. Co.
Lowry, T. M., and Huther, F., optical
activity of derivatives of quadrivalent tellurium containing two identical negative radicals. I., A., 1280.

and Lemon, J. T., properties of oxides of nitrogen. II. Binary system N₂O₃-H.O. III. Pseudo-binary $N_2O_4-H_2O$, A., 281.

Lloyd, E., and Lloyd, W. V., properties of oxides of nitrogen. IV. Formation of two liquid layers in mixtures of nitrogen peroxide and water, A., 281.

and Simpson, (Miss) D. M., rotatory dispersion. XXIX. Absorption and circular dichroism of camphorquinone, A., 1184.

See also Lemon, J. T.

Lowy, A. See Brandes, O. L.

Lozier, W. W., heat of dissociation of nitrogen, A., 142.

See also Bleakney, W., and Smyth, H. D. Lozinski, E. See Usher, S. J.

Lozinski, N. M., and Ter-Mikaeljantz, E. I., influence of carbon monoxide on grog materials, B., 408.

Ln, F. See Labes, R.

Lu, P. See Weidenhagen, R.

Lu, T. W. Seo Hsü, C. F. Lubarski, G. D., and Kagan, intermediate stages in aldehyde oxidation. III. Kinetics of the reaction between peracetic acid and aldehydes in aqueous solution, A., 165.

AND THE RESIDENCE OF THE PARTY OF THE PARTY

Lubatti, O, F., determination of fumigants. III. Micro-determination of ethylene oxide and hydrogen cyanide, B., 77.

Lublin, A., gaseous metabolism during controlled restriction of respiration. I. In men with normal hearts. II. In men during dypsnoa, A., 1398.

Lubrano, U., control of vat liquors [in sulphide-lime treatment of skinsl. B.,

Lubrication Control Corporation. See Booth, H. T.

Lubs, H. A. See Du Pont de Nemours & Co., E. I.

Lucarelli, G., action of anterior pituitary sex hormones on different endocrine glands (pancreas, adrenals, pituitary, thyroid) after ligature of the deferentice, A., 1030.

Lucas, E. E., ovens and furnace for heattreating metals and other articles, (P.),

Lucas, H. J., Kennedy, E. R., and Wilmot, C. A., decomposition of di-o-tolyliodonium iodide, A., 323.

Lucas, M. S., and Evans, C. A., correlation of qualitative microchemical tests on the protozoan nucleus and mode of nutrition,

Lucas, R., propagation of ultrasonic waves in liquid media, A., 148. Diffraction of light by ultrasonic waves, A.,

and Gallais, F., magnetic rotatory power and dispersion of alkali mercuritetra-iodides, A., 410. Two inorganic complexes having in solution an exceptionally high Verdet constant, A., 1203.

Lucas, V., analysis and commercial value of nitrates from Goiás, B., 100.

Lucchi, E. See Betti, M.

Luce, F., general theory of solubility of volatile acids in blood, A., 223.

Luce, R. H., and Pohl, A. W., crystals found in amœba, A., 382.

Luce, W. A., fruit washing during autumn of 1934, B., 392.

Lucente, G., determination of flour plasticity by simplified apparatus, B., 390.
Luchsinger, W. See Ruff, O.
Lucia, S. P. See Allen, Frank W.
Luck, J. M., liver-proteins. I. Storage

of protein, A., 1404. See also Kurtz, A. C.

Lucké, B. See Goldschmidt, S.

Lucke, H., rôle of uric acid in gout, A.,

Luckenbaugh, M. L. See Standard Oil Co. of California.

Luckmann, H., economics of basic slag and similar fertiliser materials from blastfurnace slags, B., 950.

Luckow, C., contraction on mixing together alcohol and water, B., 518. Increasing the alcohol content of spirits, B., 1064.

Ludány, G. von, villikinin in the human intestine, A., 389. Vitamin-C in fresh-water fish and crabs, A., 530. Action of ultra-violet light on villikinin, A., 880.

See also Kokas, E. von. Ludeman, C. G. See Texas Co.

Luder, W. F., and Kraus, P. B. [with Kraus, C. A., and Fuoss, R. M.], properties of electrolytic solutions. XVII. Conductance of salts in benzene and dioxan, A., 429.

Ludewig, F., and Siegener A.-G. für Eisenkonstruktion, Bruckenbau & Verkinkorei, ore-roasting furnace, (P.), B.,

Ludewig, H. See Auwers, K. von.

Ludewig, S., and Chanutin, A., lipinphosphorus content of hypertrophied heart and kidney in the rat, A., 1288. See also Chanutin, A.

Ludlum Steel Co. See Breeler, W. R. Ludmila, J., composition of humin substances, B., 401.

See also Simek, B. G.

Ludwiczak, R., and Suszko, J., origin of B-isocupreidine, A., 490.

Ludwig, C. A., and Allison, F. E., nodule formation on seedlings of leguminous plants, A., 909.

Ludwig, H. See Axmacher, F.

Ludwig, Il'., wood primers, B., 893.

Luebbers, R. See Levine, M. Lübcke, E. See Denecke, W. Lüchow, G. See Serger, H.

Lücke, F., and Geidel, W., determination of volatile basic nitrogen as an index of freshness of fish, B., 345.

Lüdecke, H. Sec Krüger, W., and Wimmer,

Lüder, E., saving of solder through [using] new alloys and other procedure, B., 550. and Heinemann, K., properties of metals and alloys and their importance in welding and soldering, B., 1158.

Lüder, H., sputtering of metals by incidence of slow ions and measurement of sputtering swelling values, A., 13.

Schottky, W., and Spenke, E., technical control of thermal breakdown [of insulators], B., 282. and Spenke, E., effect of cooling on

electrical properties of resistances which vary with temperature, A., 139. See also Justi, E.

Lueders, C. W., determination of enzyme concentration in duodenal fluids, A., 1296. Lüdtke, M., acidic character of cellulose; oxidation processes in membranes, A.,

Lüers, H., defect in flavour of bright beer, B., 343.

and Moninger, W., foam of beer, B., 72. and Vaidya, M., dependence of yeastprotein composition on the growth medium, B., 1227.

Lneg, E. G., hardening of a rail steel

containing copper, B., 547.

Lühder, E., drying of spent wash in distilleries, B., 215.

Lüppo-Cramer, [photographic] image reversal in silver iodide and mercury iodide [cmulsions], A., 171. Theory of desensitisation, A., 1348. Latent images below the threshold, A., 1473. Spontaneous re-ripening of [photographic] plates freed from [ripening] nuclei, B., 348. Image reversed by diffuse after-exposure, B., 396. Sabatier [photographic] reversal effect, B., 429. Spontaneous re-ripening of [photographic] plates freed from [ripening] nuclei. II., B., 476. Fine-grain [photographic] developers, B., 909. Variations of the Becquerel phenomenon, B., 1131. Destruction of latent images and desensitisation by dyes, B., 1131.

Lues, H., temperature variation of susceptibility of oxygen, A., 416.

Lüscher, E., and Russch, S., nitrophosphates, (P.), B., 101.
Lueth, H. C., Sutton, D. C., McMullen, C. J.,

and Muchlberger, C. W., bismuth poisoning, A., 1148. Lüthje, H., depolymerised starch to be

used as adjunct in baking, (P.), B., 39. Luetscher, O. P., open-hearth furnace, (P.), B., 575.

Lüttgens, W., and Christian, W., nitracarbon determination, A., 90. Luft, F. See Arens, H.

Luftschitz, II., strength reduction in heated mortars, B., 546.

Lugg, J. W. H., anomalous redox potentials of thiol-disulphide systems, A., 292. Thermodynamical exposition of operation of reversible gas electrodes, A., 800.

Macbeth, A. K., and Winzor, F. L., colouring matters of Droscra Whit-takeri. IV. Reduction potentials of some naphthaquinones, A., 1467.

Lugiu, N. P., determination of the atmospheric transparency coefficients for different spectral rays and the density of atmospheric ozone, A., 1317.

Lugovkin, B. P. Seo Arbusov, A. E., and Postovski, J. J.

Luhr, O., source of doubly ionised helium, A., 397.

Lui, S. C. See Hurd, C. D.

Luikov, A., application of the Heaviside-Bromwich operational method to tho solution of a problem in heat conduction, B., 911. Moisture content gradients in the drying of clay; cracking of plastic clay during heating in a saturated atmosphere; maximum allowable moisture gradient in the drying of clay, B., 694.

Luis, E. M. See McKenzie, A. Luisenko, P. See Maier, L.

Lukáč, R., chemical and physical properties of some tremolites from the Tábor region and their genetic relations

to mother rocks, A., 185.

Lukaschevitsch, V. O., action of sodium on aromatic nitro- and nitroso-compounds, A., 327. Benzoylation of primary aliphatic amines, B., 440.

Lukaschevitsch-Duvanova, J. T., nature of slag inclusions in steel and their determination, B., 22, 993.

Lukasiak, A., mixed glycerides of salicylic

acid and fatty acids, A., 453.

Luke, K. D., Madgin, W. M., and Riley,
H. L., formation of carbon dendrites, A., 1089.

Lukens, H. S. Seo Krieger, K. A.

Lukeš, R., and Gorocholinskij, J., action of the Grignard reagent on the amido-IX. 6-Hydroxy-1-methyl-tigroup. alkyl-2-piperidones and 1-methyl-6alkyl-3:4-dihydro-2-pyridones, A., 997. and Přeučil, J., action of Grignard

reagent on the amido-group. VIII. Action of organo-magnesium compounds on ethyl 1-methyl-2-pyrrolone-5-acetate, A., 82.

and Smolek, K., unequal reactivity towards organometallic compounds of the carbonyl group in succinmethylimide and in N-methylpyrrolidone, A., 82.

Lukiantschikov, A. N. See Subbotin, S. A. Lukin, A., and Roginski, S., explosive decomposition of tetryl, A., 166.

Lukirski, P. I., and Zareva, T. V., experiments with slow neutrons, A., 131. Slowing down of neutrons by the nuclei of heavy elements, A., 1441.

Lukova, S. D. See Shicharevitsch, S. A. Lulek, R. N. See Du Pont de Nemours

& Co., E. I. Lumb, C. F., casting of metals, (P.), B., 1101.

Lumière, A., and Meyer, P., influence of intravenously injected carbon suspensions on blood-sugar, A., 1008.

Meyer, P., and Thibaudet, M. A., influence of intravenously injected carbon suspensions on blood-proteins and albumin/globulin quotient, A., 1008.

Lummus Co. See Coubrough, G. B., and Kraft, W. W.

Lumsden, C. H. See Imperial Chem. Industries.

Lumsden, J. Seo Okell, F. L.

Lund, A., action of follicular hormone on growth of micro-organisms, A., 1026. See also Nielsen, Niels.

Lund, A. F. R., apparatus for determination of inflammability of building materials towards radiant heat, B., 1096.

Lund, A. M., sheet formation on a Fourdrinier wire [of the paper machine], B.,

Lund, F. L., antifreeze composition, (P.), B., 128.

Lund, Hakon, condensations of eyanoacetic esters with carbamido by magnesium methoxide, A., 1126.

Lund, Helge, and Lieck, H., specific reaction for the detection and determination of ascorbic acid in scrum, A., 906. Lund, J., whale oil and whale tribes, B.,

Lund, N. B., and Dorr Co., thickener, (P.), B., 256.

See also Downes, F. A.

Lund, R. J. See Leith, C. K. Lundberg, E., influencing of time of coagulation of blood by the sex hormone and its variation in hormonal hermaphroditism and experimental sex changes, A., 252.

Lundberg, W. O. See Ahlberg, J. E. Lundblad, K., podsols and brown forest soils. II. and III., B., 610, 805.

Lunde, C. M. See Schuette, H. A. Lunde, G., and Kringstad, H., lead in [preserved] sardines, B., 1124.

Lundell, G. E. F., and Hoffmann, J. I., at. wt. of gallium, A., 263.

Lundgren, H. P., association and dissociation reactions of thyroglobulin, A., 1158. Lundin, H., recent theoretical and practical Swedish contributions to the brew-

ing industry, B., 662. Lundina, Z. F. See Maschovetz, V. P. Lundquist, J. T. See Dow Chem. Co.

Lundquist, O., Röntgen emission spectra and chemical combination. IV. Ka1a2 lines of phosphorus compounds, A., 1438. Lundqvist, D. See Lindqvist, M.

Lundsgaard, E., Nielsen, N. A., and Ørskov, S. L., carbohydrate metabolism of the isolated cat liver, A., 1545.

Lundstedt, E., and Pfister Chem. Co., Inc., treatment of milk, (P.), B., 347.

Lundsteen, E. See Haugaard, G. Lundstrom, F. O. See Whittaker, C. W. Lundy, H. W., complement fixation reactions in carcinoma, A., 751.

Lundy, J. S., anæsthesia, B., 1127. Lunev, A. Sco Levina, S.

Lunevale Products, Ltd. See Fitzgibbon, M.

Lnniatschek, V. See Buresch, H. Lunkenheimer Co. See Bolton, J. W.

Lunniss, C. C., recovery of sound finegrained metal from aluminium scrap foils, dross, turnings, etc., (P.), B., 1049.

Lunt, H. A., forest lysimeter studies under pine, B., 658. Lunt, R. W., Pearse, R. W. B., and Smith,

E. C. W., the 4502 A. band of NH, A., 7. The 2530 A. band of NH, A., 1047.

See also Emeléus, K. G., and Meek, C. A.

Lupander, K., refractive index and sp. gr. of kieselguhr, A., 184.

Lupas, I. See Secareanu, S.

Luque, E., and Luque & Fuertes, essence of coconut and synthetic coconut water, (P.), B., 619.

Luque & Fuertes. Sco Luque, E.

Lure, A. I. Soo Golub, N. V.
Lure, S. N., Rimmer, B. I., Volin, G. A.,
and Poljakova, L. B., laboratory tests of asbestos diaphragms for electrolysis of aqueous solutions, B., 1050.

Lurie, R., preservation of timber, (P.), B., 500.

Lurie, S. N., and Kopelevitsch, T. Z., causes of decomposition of hydrogen peroxide, and stabilisation of perhydrol, B., 884.

Luschenowsky, A., flux for smelting and refining magnesium and its alloys, (P.), B., 505.

Küppers Metallwerke G.m.b.H., solder for aluminium and its alloys, (P.), B., 844.

Luster, E. W. See Standard Oil Development Co.

Lustig, B., composition of normal and diseased organs. I. Normal, carcinomatous and sarcomatous lung, A.,

See also Adlersberg, D., and Perutz, A. Lustrafil, Ltd., and Barker, S. W., treatment [and drying] of artificial silk or other textile filaments, (P.), B., 830.

Luszczak, A., determination of xylene and xylene-toluene mixtures in the air of rooms, B., 397. Determination of light benzine vapours in the air of rooms, B.,

Luther, M., Pungs, W., Griessbach, R., Heuck, C., and Unyte Corp., production of lacquer bases from urea and formaldehyde, (P.), B., 1110.

Luther, R., thermodynamic problem, A., 159.

and Hoffmann, R., behaviour of chlorine dioxide in carbon tetrachloride solution in dark and light. II. Behaviour

in light, A., 1177.
Luthra, H. L. See Vaidyanathan, V. I.
Lutman, B. F., cell size and structure in plants as affected by various inorganic

clements, A., 648. Luton, C. W. See Universal Oil Products Co.

Lutschin, I. I., fixing agent for casein pigments used on leather goods, B., 948.

Lutschinski, G. P. [with Altmann, E. S.], reaction of titanium tetrachloride with phenol, A., 173.

and Lichatscheva, (Mlle.) A. I., thermal analysis of the system POCl3-SO2Cl2, A., 30. Colorimetric determination of titanium in presence of bromine com-pounds, A., 45. Titanium chloro-sulphonato-chloride, A., 575.

See also Lichatscheva, (Mlle.) A. I.

Lutwak-Mann, C., decomposition of adenine compounds by bacteria, A., 1301.

and Mann, T., chemical reactions during alcoholic fermentation. I. Production and hydrolysis of adenosinetriphosphoric acid and their connexion with hydrolysis of sugar, A., 112. See also Parnas, J. K.

Lutz, H., new material for pipe construction [vinyl chloride resin], B., 1108.

Lutz, J. F., relation of soil erosion to inherent soil properties, B., 163.

Lutz, O., optically active imides, A., 978. and Krauklis, A., synthesis of succinic acid-isoquinoliniumbetaines, A., 483.

Lutz, R. E., and Small, L., reduction in morphine series. VII. ψ-Codeinone, A., 350.

and Stuart, A. H., ab-diphenylbutane $a\beta\delta$ -trione enol; alkylation and benzoylation, A., 1524.

Lux, H., determination of small quantities of zinc, A., 178. Mercury float-valves [taps] for high-vacuum work, A., 182. Luyckx, A. See Mund, W.

Luyet, B., electrical resistance of milk and its constituents, A., 880.

Luyken, A. See Wolff, H.

Luyken, W., and Kraeber, L., magnetic properties of natural and artificial ironoxygen compounds. I. Magnetic measurements on powder samples, A., 46.

Luzanski, N., arsenic content of samples of Norwegian cod-liver oil, B., 558. Arsenie content of marine food-stuffs, B., 568.

Lvov, A., function of protohemin in protozoa and parahæmotropie bacteria, A., 1154.

and Dusi, II., nutrition of the euglenia, Astasia chattoni, A., 516.

and Lvov, M., nature of factor-V, A., 1562.

Lvov, M. See Lvov, A.

Lvova, W. See Rubinstein, D. L.

Lydén, R., behaviour of chromic oxide towards alkali halogenate solutions. II. Autocatalysis in the system chromic oxide-bromate and influence of bromides

in solution, A., 167.

Lyford, D., and Bearden, J. A., radioactivity of samarium and "columnar ionisation," A., 130.

Lygos Proprietary, Ltd., moulding composition and its production, (P.), B., 654. Lykov, A. V., kinetics of sorption, A., 423.

Lyle, A. K., Horak, W., and Sharp, D. E., effect of alumina on the chemical durability of sand-soda-lime glasses, B., 642. Lyman, C. M., and King, C. G., effect of

diphtheria toxin on vitamin-C content of guinea-pig tissues, A., 529. Lyman, J. C., and Parks, G. S., glass. XIV.

Compressibility of glucoseglass, A., 558. See also Kuhn, R.

Lymn, A. H. See Gas Chambers & Coke Ovens.

Lynam, T. R., and Rees, W. J., tridymitisation of silica bricks, B., 60. Effect of oxides of iron and chromium and a reducing atmosphere on rate of tridymite formation in a silica-brick batch, B., 146. Effect of water content of silica-brick batches on porosity of fired brick, B., 498. Experiments on chrome-

silica bricks. I. and II., B., 694. Lynch, D. F. J. See Reid, J. D. Lynch, G. R., pharmacology of caffeine and of tea and coffee, A., 892.

Lynch, K. M. See Coulson, E. J.

Lynch, L. I., preservation of orange juice, B., 520.

Lynes, F. F., statistical analysis applied to research in weed eradication, B., 756. Lynn, E. G., Englis, D. T., and Milum,

V. G., effect of processing and storage on composition and colour of honey, B., 856. Lynn, E. V. See Jones, Ivor.

Lyon, D. A. Sec Balsbaugh, J. C.

Lyon, K. C. See Parmelce, C. W. Lyon, W. K. See Ellis, J. W.

Lyons, F. H., and Bruce Co., E. L., impregnating wood, etc., (P.), B., 456.

Lyons, J, influence of chemical composition of butter fat on firmness of butter, B.,

and O'Shea, M., loss of butter fat in churning, B., 520. Lyons, W. J., behaviour of the absorption

band of uranine solution under high pressure, A., 1048.

Lyot, B. See Arnulf, A.

Lyse, I., quality, design, and economy of concrete, B., 499, 885. Shrinkage of concrete, B., 545. Lyster, T. L. B. See Hooker, P.

Lythgoe, B. See Heilbron, I. M. Lythgoe, R. J. See Bayliss, L. E., and Dartnall, H. J. A.

Lytle, A. R., and Oxweld Acetylene Co., filler material for welding, (P.), B., 1000.

M.

M.-O. Valve Co., Ltd., and Benjamin, M., highly electropositive metals within scaled vessels, e.g., thermionic valves, (P.), B., 331.

and Jessop, G. R., electric-discharge devices, (P.), B., 507.

Rees, R. W., and Smithells, C. J.,

electric-discharge devices, (P.), B., 507. and Smithells, C. J., thermionic valves, (P.), B., 1052.

Smithells, C. J., and Warren, G. W., [heating of] thermionic cathodes, (P.), B., 333.

and Wright, D. A., removal of residual gases from highly evacuated vessels, (P.), B., 912.

Ma, C. M. See Chuang, C. K.

Ma, S. T. See Kiang, A. T., and Wu, T. Y.

Maack, H. W. See Eckman, H. A. Maanen, D. H. J. van, filter for use in a

press for extraction of juices from exhausted sugar-beet cosettes, fresh cosettes, and other air-containing substances, (P.), B., 577. Extraction of juices from exhausted sugar-beet cosettes, fresh cosettes, and other air-containing substances, (P.), B., 577. Press for extraction of juices from exhausted sugarbeet cosettes, fresh cosettes, and other air-containing substances, (P.), B., 577.

Maas, F. J., copper alloy, (P.), B., 796. Langkau, A. W., Kokoefer, A., and Csar, E., copper alloy for conducting electricity, (P.), B., 376. Non-stainable copper alloy, (P.), B., 376. Copper alloy for bearings, (P.), B., 376.

and Prominski, A. J., non-stainable steel alloy, (P.), B., 376.

Maas, W. Seo Koller, G. Maaske, C. A. See Bunting, H.

Maass, O., surface area of [wood] pulp, B., 94. See also Corey, A. J., Gishler, P. E., Gurd, G. W., Larocque, G. L., Marsden, J., Pall, D. B., Van Cleave, A. B., and Williams, A. R.

Maass, W., thick greases. T .- III., B., 729.Maassen, G. See Dickens, I.

Maatschappij tot Exploitatie van "ten Bosch Octrooien N.V." See under N.V. Maats. tot Exploit. van "ten Bosch Octrooien."

Mabb, P., corrosion-resistance of aluminium and standard aluminium-base alloys, B., 457. Bimetallic corrosion promoted by copper-aluminium contacts, B., 794.

Mabique, P., and Melot, G., action of hæmatoporphyrin on blood-calcium and

-phosphorus, A., 1551. Mabuchi, H. See Masai, Y. Mabuchi, O. See Sasaki, N.

MacAdam, D. L., use of the reflexion echelon for interferometric wave-length comparisons extending Schumann region, A., 1039.

McAdams, R. E., accessory minerals of the Wolf Mountain granite, Llano County,

Texas, A., 699. McAdams, W. H. Sce Drew, T. B.

McAleer Manufacturing Co. See Weihe, F. A., jun.

McAlister, E. D., spectrographic method of measuring carbon dioxide concentration, A., 812.

Macallen Co. See Banks, W. H., jun. McAllister, S. H. See Bataafsche Petroleum

McAllister, W. H., and Procter & Gamble Co., high-molecular alcohols and unsaturated hydrocarbons, (P.), B., 1191.

Macallum, A. D. See Du Pont de Nemours & Co., E. I.

Macarovici, C. G. See Spacu, G.
McArthur, C. K., and Dorr Co., [rake]
classifier, (P.), B., 1023.

Macaulay, $J. \dot{M}$, range of action of surface

forces, A., 1458.

McBain, J. W., determination of bound water by means of the ultracentrifuge, A., 441. Pre-Gibbs adsorption by surface rearrangement, A., 676. Conception of electrokinetics as an integral part of electrochemistry of solutions, A., 1463.

Ford, T. F., and Mills, G. F., simplified and improved cell for liquids in the interferometer, A., 1355.

and O'Sullivan, C. M., development of air-driven spinning top as transparent centrifuge, A., 182.

and Scott, Daniel A., micellar structure as related to cellulose, B., 490.

and Searles, (Miss) J., mixtures of colloidal electrolytes with uni-univalent salts, A., 795.

and Sessions, R. F., activation of redwood and ash-free sugar charcoal in a current of air, A., 809.

and Stuewer, R. F., application of a simple air-driven spinning-top centrifuge to colloid-chemical problems, A., 286.

and Swain, R. C., measurements of adsorption at the air-water interface by the microtome method, A., 1063.

and Wilson, D. A., reversible adsorption in surface of soap solutions, A.,

See also Ford, T. F.

McBean, K. D. See Stimmel, B. A. McBee, E. T. See Hass, H. B.

McBerty, F. H. See Du Pont de Nemours & Co., E. I. Macbeth, A. See Simpson, S. L.

Macbeth, A. K., and Price, J. R., absorption spectra of nitrophenylhydrazines, A., 135. Absorption spectra of 1:2:3benztriazoles, A., 345.

See also Lugg, J. W. II.

Macbeth-Evans Glass Co. Sec McGregor, R. R.

McBride, D. L., Herty, C. H., jun., and Mehl, R. F., effect of deoxidation on rate of formation of ferrite in commercial steels, B., 935.

See also Herty, C. H., jun.

McBride, R. S., pressure storage of gases and liquids, B., 128. MacBride, W. B., refractories for the electro-

thermic zinc industry, B., 193.

McBryde, D. L., pan boiling by conductivity control in Queensland, B., 710. Pan boiling by conductivity control, B., 1062. McBryde, W. Seo Bonnybridge, Silica &

Fireclay Co.

McBurney, D., coated fabrics in construction industry, B., 143.

McBurney, J. E., and Owens-Illinois Glass Co., coating of glassware [with sulphur], (P.), B., 695.

McCabe, L. C., concentration of banded ingredients of Illinois coals by screen-

sizing and washing, B., 353.

Mitchell, D. R., and Cady, G. H., coal; banded ingredients of No. 6 coal and their heating values as related to washability characteristics, B., 481. Approximate analyses and screen tests of coal-mine screenings produced in

Illinois, B., 817.
McCabe, W. L. See Bertetti, J. W.

McCabe, W. S., results obtained by chromicsulphuric acid etching of Illinois coals, B., 1174.

McCaleb, R. E., stamp mill, (P.), B., 623.

McCall, R. J. S. See Elder, S.

McCalla, A. G., and Woodford, E. K., effect of potassium supply on composition and quality of wheat. II., B., 292.

See also Newton, R. McCallan, S. E. A., Hartzell, A., and Wilcoxon, F., hydrogen sulphide injury to plants, B., 1171.

and Wilcoxon, F., action of fungus spores on Bordeaux mixture, B., 899.

MacCallum, F., and Redfern, A. II., attachment of paste to plates of electric batteries, (P.), B., 378. Dry batteries, (P.), B., 1051.

McCampbell, C. W., and Aubel, C. E., calcium carbonate versus calcium sulphate in swine rations, A., 1409.

McCance, R. A., experimental sodium chloride deficiency in man, A., 512. Medical problems in mineral metabolism. I. Legacies of evolution. II. Sodium deficiencies in clinical medicine.

III. Experimental human salt deficiency, A., 755.

and Lawrence, R. D., secretion of urine in diabetic coma, A., 100.

and Widdowson, E. M., phytin in human nutrition, A., 233. Response of the kidney to an alkalosis during salt deficiency, A., 888.

See also Jones, E. I., and Shackleton, L.

McCandless, E. L. See Mehl, R. F. M'Candlish, A. C., and Struthers, J. P., feeding butter fat to dairy cows, B., 391. McCandlish, D., chromic acid cleansing of

[Berkefeld] filter candles [in tannin analysis], B., 804.
McCann, J. F. See Sprague, R. C.

McCann, W. R., and Atmospheric Nitrogen Corp., storage of soluble salts [sodium

carbonate], (P.), B., 1037.

McCarrison, (Sir) R., nutrition and national

health, A., 368.

McCarthy, B. C., difference between structures shown by cold-working [of metals],

MacCarthy, J. D. See Sweet, A. T.

McCarthy, J. L., and Jahn, E. C., measurement of gelatinisation of wood and [wood] pulp by water-retention under pressure, B., 829.

McCarthy, L. M., garbage, ashes, and refuse disposal and land reclamation, (P.),

B., 1070.

McCarty, B. Y. Seo Skelton, W. E., Texaco Development Corp., and Texas Co. McCarty, E. C., seasonal march of carbohydrates in Elymus umbiguus and Muhlenbergia gracilis, and their reaction under moderate grazing use, B., 293.

McCarty, J. E., Randolph, D. W., and Gen. Motors Corp., aluminium-barium alloys,

(P.), B., 1102.

McCauley, G. V., and Corning Glass Works, cooling of glass, (P.), B., 990. See also Corning Glass Works.

McCauley, R. B., [ferrous] metal with phosphide case, (P.), B., 795.

McCay, O. M., Tunison, A. V., Crowell, M., and Paul, Henry, calcium and phosphorus content of the body of the brook trout in relation to age, growth, and food, A., 878.

See also Maynard, L. A. McCay, M. S. See Stuhlman, O., jun. McCharles, C. H., and Pitman, G. A., wine analysis, B., 295.

Macchia, E., indole. II. Effect of indole on blood-sugar, urea-nitrogen, and blood-amino-acids. III. Indolæmia provoked by ligaturing the hepatic peduncle: indican-indole index. IV. Indican-indole iudex of the blood in various experimental conditions. Indican-indole index of the blood in patients with normal liver and hepatic disease. VI. Microdetermination of free indole in blood, A., 356, 752. Determination of urinary ketones for clinical use, A., 362. See also Fiorentino, M.

Macchia, O., behaviour of inner surfaces of chromium-plated and nitride-hardened

gun barrels, B., 150.

Macchiarulo, O., adrenaline and sugar content of foetal blood, A., 249. Demonstration of adrenaline in the amniotic liquid and extract of the amniotic membrane in different periods of pregnancy, A., 881.

Macciotta, E., nitroamines. VI. 3:6-Dinitrophenylnitroamine, A., 1242.

McClaren, J. I. See Gregory, F. E. McClave, J. A. E., Grant, D. H., and Stanco, Inc., colouring [cosmetic and pharmaceutical] emulsions and products thereof, (P.), B., 715.

McClean, A. P. See Christensen, B. V.

McCleery, W. L., purity and glucose—ash

relationship of [cane] molasses, B., 1063. McClellan, J. L., and Hollingsworth & Vose Co., insulating or "fish" paper,

(P.), B., 786. Paper, (P.), B., 786. McClelland, E. W., and Salkeld, C. E., reaction of semicarbazones with alcohols, A., 1097. Possibility of dynamic isomerism in certain heterocyclic compounds, A., 1264.

McClendon, J. F., behaviour of thyroid follicles in the Harvey-Loomis centrifugo microscope, A., 748. Electric impedance and permeability of living cells, A., 1403.

McCloskey, G. E. See Barrett Co. McCloskey, K. L. See Wright, A. M.

McClung, L. S., and McCoy, E., anaërobic bacteria. VII. Serological relations of Cl. acctobutylicum, Cl. felsineum, and Cl. roseum, A., 1155.

and Wheaton, E., isolation and identification of an anaërobic organism producing gas in boiled beef, B., 1231.

See also McCoy, E.

McClure, G. S. See Hall, J. F., jun. McClure, R. D., goitre prophylaxis with iodised salt, A., 101.

McClure, R. R. See Church, J. W.

Maccolini, R., behaviour of hepatic lipins in experimental rabies, A., 366.

McColloch, L. P. See Brooks, C.

McCollum, E. V. See Day, H. G., and

Klein, Henry. McCombs, L. F., and Schrero, M., bibliography of non-metallic inclusions in iron and steel, B., 22.

McConachie, J. D., Graham, W. R., jun., and Branion, H. D., protein requirements of chicks, A., 102.

McConkie, J. E., and Amer. Can Co., corrosion inhibition [of food-can in-

teriors], (P.), B., 1101.
McConnaughay, K. E., and Pre Cote Corp., bituminous emulsion, (P.), B., 629. Paving material, (P.), B., 644.

McConnel, F. W., and Howard, J. K. R., apparatus for grading articles by size, (Ŷ.), B., 961.

McConnell, D., spherulitic concretions of dahllite from Ishawooa, Wyoming, A.,

McConnell, E. B. See Standard Oil Co. McConnell, T. A. See Schneider, H. F., jun.

McCool, M. M., effect of light intensity on manganese content of plants, A., 531. Fertiliser value of a new nitrogenous material, B., 852. Composts, B., 1223.

McCoord, A. B. See Clausen, S. W. McCorkindale, W. P., and Amer. Writing Paper Co., papermaking [imitation hand-

made paper], (P.), B., 187. McCormick, H. P. See Standard Oil Co. of California.

McCormick, J. M., tests of strength of electric-lamp bulbs, with special reference to the time factor, B., 989.

McCormick, R. B., advanced and refined technique in the petrographic study of crystalline refractories, B., 455.

McCormick, W. E., and Davey, W. P., glassy state of arsenic, A., 1328.

McCormick, W. J., rôlo of glycæmic response to nicotine; tobacco smoking and blood-sugar, A., 892.

MacCorquodale, D. W., Thayer, S. A., and Doisy, E. A., isolation of principal æstrogenic substance of liquor folliculi, A., 1427.

McCortney, W. J., Bailey, E. L., and Chrysler Corp., formation of hard rubber [ebonite] coatings [on metal], (P.), B.,

McCowan, W. See Dunlop Rubber Co., and Internat. Latex Processes.

McCoy, C. H., Wright, D. W., Hall, J. P., and Swift & Co Fertilizer Works, phosphatic materials, (P.), B., 987.

McCoy, E., and McClung, L. S., anaërobic bacteria. VI. Nature and systematic position of a new chromogenic Clostridium, A., 1155.

See also McClung, L. S.

McCoy, H. N., europium, A., 1347. McCoy, J. W. See Du Pont de Nemeurs

& Co., E. I.

McCoy, M. O., separating gold and other heavy concentrates from finely-divided ore or matrix, (P.), B., 1212.

McCoy, R. H., Meyer, C. E., and Rose, W. C., feeding experiments with mixtures of highly purified amino-acids. VIII. Isolation and identification of an essential amino-acid, A., 233.

McCoy, W., treatment of glazed ceramic ware, (P.), B., 740.

McCrea, A., fungicidal value of some com-

mon dyes against dermatophytic fungi, B., 430.

McCready, D. W. See Nolan, W. J.

McCrery, H. E., and Blaw-Knox Co., mixer, (P.), B., 176.

McCrone, J., nitralloy steel and nitriding, B., 197.

McGrosky, C. R. See Coleman, W. C. McGubbin, J. W. See Steacie, E. W. R. McCue, P., cement composition, (P.), B.,

McCullagh, D. R., blood-iodine; a new chemical method, A., 93.

See also McCullagh, E. P., and Stimmel, B. F.

McCullagh, E. P., and Kearns, J. E., relationship between the parathyroid glands and sex hormones in tetany, A., 527.

and McCullagh, D. R., blood-iodine in clinical practice, A., 1135.

McCulloch, L, derivation of the equation PV=RT, A., 1331.

McCulloch, R. See Skau, E. L.

McCullough, C. R., and Swann Res., Inc., halogenation of diphenyl, (P.), B., 1032. McCnllough, J., and Heintz & Kaufman, Ltd., coating for thermionic cathodes,

(P.), B., 241.

See also Eitel, W. W. McCullough, N. B. See McGinty, D. A. McCullough, W. E., high-purity ingot metal, B., 794.

and Bohn Aluminum & Brass Corp., cadmium-base bearing metal, (P.), B.,

McCutchan, W. N., Arzberger, C. F., and Commercial Solvents Corp., production of butyl alcohol by fermentation, (P.), B., 1174.

McDaniel, O., and Mountain Varnish & Color Works, coating composition for protecting the skin, (P.), B., 1235.

MacDermot, P. N. See Usher, S. J. McDermott, F. A. See Du Pont de

Nemours & Co., E. I.
MacDonald, A. R. See Cerobrex, Ltd.

McDonald, C. H., Shepeard, W. L., Green, M. F., and De Groat, A. F., response of the hyperthyroid heart to adrenaline, A., 249.

McDonald, E., biochemical apparatus, Λ ., 534.

MacDonald, H. See Speakman, J. B.

McDonald, J. A., phosphorus fixation in soils in relation to iron availability: possible connexion with the gypsum-phosphate problem in cacao soils, B., 659. Effects of deficiencies of essential nutrient elements on growth of young cacao plants, B., 660.

McDonald, J. A., fertiliser experiments with cacao, B., 660. Mulching experiments, B., 660.

and Rodriguez, G., effect of fertiliser treatments on composition of cacao leaves: diagnosis of soil and crop-nutrient requirements by means of leaf analysis, B., 660.

See also Hardy, F.

MacDonald, J. L. A., chemical engineering problems in manufacture of papermakers' cellulose, B., 1199.

Macdonald, J. Y., thermal decomposition of silver oxalate, A., 295. Thermal decomposition of silver oxalate. I. Experimental. II. Theoretical, A., 940. MacDonald, M. B., mitogenetic effect on yeast of cliedways and all of the control of the

yeast of oligodynamic radiations from

metals, A., 1421.

Macdonald, R., jun. See Harper, R. L.
McDonald, R. D. See Steacie, E. W. R.
MacDonald, W. See Speakman, J. B.
Macdonald, W. R., Sutherland, W. M., and

Snow, N. W., [kicselguhr] aggregate, (P.), B., 235.

McDongal, H. R. See Eastman Kodak Co. MacDougall, D. P., and Giauque, W. F., production of temperatures below 1° abs.; heat capacities of water, gadolinium nitrobenzenesulphonate heptahydrate, and gadolinium anthraquinonesulphonate, A., 954.

McDougall, E. J., influence of calcium on

intestinal absorption, A., 511.

and Verzár, F., absorption of water from common salt and sugar solutions, A.,

MacDougall, F. H., and Bartsch, C. E., solubility and activity coefficient of silver acctate in mixed solvents, A.,

and Hoffman, Everett J., solubility of lead bromate and its activity coefficients in solutions of electrolytes, A.,

McDowall, A. K. R. See McDowall,

McDowall, F. H., Walker test for casein in milk, B., 567. Determination of carbon dioxide in biological fluids, particularly milk and cream, B., 903. Acidity determination in cheese- and butter-making, B., 952. Spreading of dairy wastes and surplus whey on grasslands, B., 1223. Cheese-yielding

capacity of milk, B., 1230.

and Dolby, R. M., Walker method of determining casein in milk, and its application to preservatised composite samples, B., 615. Chemistry Cheddar cheese-making. Mineral content of cheese and whey. III. Conversion of lactose into lactic acid by starter cultures. IV. Lactose and lactic acid in whey and curd; presence of bound water in curd; existence of a Donnan equilibrium between curd and whey; rate of penetration of salt into curd, B., 759, 1230.

and McDowall, A. K. R., determination of casein by formol titration after

precipitation with acid, B., 810.
and Smith, J. W., timber for butter
boxes. I. Casein-formalin spray treatment for boxes. II. Untreated O.B. rimu for boxes, B., 1015. See also Dolby, R. M.

McDowall, R. J. S., control of the circulation of the blood, A., 1402.

MacDowall, R. K., potato blight; control by spraying, B., 806.

McDowell, L. A., and Johnston, H. L., solubility of cupric oxide in alkali and the second dissociation constant of cupric acid; analysis of very small amounts of copper, A., 1456.

McDowell, L. S., Bullard, P., and Whitney, M. E., effect of frequency of impressed e.m.f. on power losses and dielectric constant of various glasses, B., 275.

McDowell, M.L. See Pearce, J.N. McDuffle, W.C. See Craig, W.A.

Mace, J., maintenance and layout of a modern dyehouse, B., 1203.

McEachern, D., metabolism of isolated surviving tissues from animals rendered hyperthyroid with thyroxine, A., 903.

McEllin, P. E., colouring of sands, (P.), B., 234.

McElvain, S. M., piperidine derivatives (local anæsthetics), (P.), B., 476.

See also Beyerstedt, F., and Prill, E. A. McEntegart, J. M. See Imperial Chem. Industries.

McEuen, C. S., Selye, H., and Collip, J. B., effects of prolonged administration of cestrin in rats, A., 762. See also Selye, H.

McEwen, G. F. See Fox, D. L. McEwen, W. K., extremely weak acids, A.,

Macey, H. H., time factor in drying [bricks], B., 989.

McFadgen, H. J., and Chrome Alloys Manufg. Co., [formation of copper-nickel-zine] alloy, (P.), B., 698.

MacFadyen, D. A., and Sturm, E., factors from normal tissues influencing growth of transplanted cancer, A., 1142

McFadyen, J. S., and Stevens, T. S., conversion of acids into aldehydes, A., 850. McFarlan, R. L., structure of ice. II. and III., A., 275, 669. Apparatus for X-ray

patterns of the high-pressure modifieations of ice, A., 445.

McFarland, J. C., and Wadsworth Watch Case Co., age-hardening silver of sterling or higher standard, (P.), B., 330.

McFarland, J. L. See Gen. Electric Co. Mcfarlane, M. G., phosphorylation in living yeast, A., 1300.

MacFarlane, W. C., and Xylos Rubber Co.,

treatment of tacky material [reclaiming of rubber], (P.), B., 1221.

McFarlane, W. D., determination of iron

by titanium titration and by 2:2'-dipyridyl colorimetry, A., 580. Dissociation and ultra-violet absorption spectra, A., 999. Reduction of iron by tissue extracts and by ascorbic acid, with a note on stabilisation of ascorbic acid solutions, A., 1160.

McGarr, R. L. See Ewing, K. P.

McGavack, J., and Gen. Rubber Co., crude

rubber, (P.), B., 1113. Tefft, R. F., and U.S. Rubber Co., rubber for electrical insulation and waterresistant materials, (P.), B., 705.

and U.S. Rubber Co., creaming of [rubber] latex, (P.), B., 112. Thickening of [rubber] latex, (P.), B., 112. Chlorinated rubber, (P.), B., 1169. See also U.S. Rubber Co.

McGeorge, W. T., aspects of citrus tree decline as revealed by soil and plant studies, B., 851. Measurement and significance of hydroxyl-ion concentration in alkaline calcareous soils, B.,

McGeorge, W. T., and Greene, R. A., oxidation of sulphur in Arizona soils and its effect on soil properties, B., 851. See also Sweek, W. O.

McGhee, J., biochemical aspects of caninehysteria treatment, A., 883. Value of urine examination in disease of the

urinary tract in the dog, A., 884.

MeGill, A. U. See McGill, H. T.

McGill, H. T., and McGill, A. U., cleaning and scouring material, (P.), B., 1107.

MacGillavry, C. H., energy of activation, A., 1343.

MacGillavry, D., deuterium. II. and III., A., 13. Polarographie investigations of anhydrous acetic acid solutions, A., 1207.

MacGillivray, H., temperature of tomatoes and colour development, B., 761.

MacGillivray, J. C. See Bennet, R. McGinty, D. A., McCullough, N. B., and Wolter, J. G., progestin content of human placenta, A., 1535.

MacGlashan, W. F. See Harding, C. K. McGovran, E. R., physiological and toxicological studies on insects. I. Respiratory response of adult orthoptera to certain gases. II. Toxicity of petroleum oil mixed with certain chemicals, B., 516.

McGowan, G. K., and Peters, R. A., carbohydrate metabolism, A., 1545.

McGowan, J. C., rule for substitution in the benzene series, A., 1238.

McGrath, J. See Imperial Chem. Industries. McGraw, G., and Oakland Chem. Co., skin-cleansing and purifying cream, (P.), B., 1019.

McGreal, M. E., and Niederl, J. B., synthesis of alkyl- and aryl-cryptophenols,

McGregor, G. H., relation between chemical and physical characteristics of representative types of pulp, B., 491.

MacGregor, M., xenolithic pegmatite in the Dalbeattie "granite," A., 1088.

McGregor, R. R., Tillotson, E. W., and Macbeth-Evans Glass Co., purification of sand, (P.), B., 989.

MacGregor-Morris, J. T., and Billington, R. M., selenium rectifier photo-cell, characteristics and response to intermittent illumination, B., 1103.

McGuigan, H. A., and Higgins, J. A., changes in the circulatory effect of potassium salts due to adrenaline, A., 1425.

Mach, G. M., determination of phenols, B., 918.

See also Schtraler, F. E.

Mach, R. S. See Sciclounoff, F.

Mach, U. See Elöd, E. Machacek, J. E., and Greaney, F. J., control of root-rot diseases of cereals

caused by Fusarium culmorum (W. G. Sm.), Sacc., and Helminthosporium sativum, P., K., and B. III; effect of seed treatment on control of root-rot and on yield of wheat, B., 386.

Machado, A., oleo[resin] of "sucupira" [Bowlichia virgiloides seeds], B., 1165. Machalova, N. See Sokolov, A. McHard, J. A. See Smith, G. F.

Machatschki, F., crystallised melanterite from Pfaffenreuth, Bavaria, A., 49.

McHatton, L. P., test for water-resisting properties of paints for steelwork, B., 160.

Mache, H., theory of non-independent flow of electricity in gases, A., 1050.

Machebouf, M. A., and Basset, J., biochemical and biological changes produced by high pressures, A., 1291.

and Dieryck, J., chemiovaccine producing in the rabbit immunity against tubercle infection, A., 623.

Machek, F. See Heller, K.

Machen, C. Sec Brit. Coal Distillation.

McHenry, E. W., effect of choline on weight of young rats, A., 509.

Machi, M. See Igari, M.

Machlet, A. W., bell retort furnace, (P.), B., 399. Casing [case-hardening] of steel articles, (P.), B., 602. Casehardening of iron, steel, or alloyed steel articles, (P.), B., 937. Continuous heat-treating machine, (P.), B., 959.

Macht, D. I., and Bryan, H. F., effect of deuterium oxide on action of enzymes, A., 1025. Comparative action of cobra venom and morphine on autoxidation of cerebral and other tissues, A.,

1553.

Machtinger, A. I., and Fedorov, A. J., composition of saliva from the separate glands in children, A., 625.

Machu, W., protective action of inorganic and organic substances in acid corrosion of metals (inhibitors), B., 1043.

McHugh, S. See Freilich, J.

Maciejewski, M. See Jezierski, T. W. MeIlroy, R. J., metallic contamination of dairy products. I. Determination and distribution of copper in New Zealand milk, B., 810.

Espiner, A. C., and Monro, A. D., thiocyanate co-ordination compounds, A., 948.

McIlvaine, O. T., and McIlvaine Patent Corp., vacuum tube [thermionic valve], (P)., B., 1052.

McIIvaine Patent Corporation. See McIlvaine, O. T.

McIlwain, H. See Clemo, G. R.

MacInnes, D. A. See Shedlovsky, T.

MacIntire, W. H., and Amer. Zine, Lead & Smelting Co., light fluffy material [precipitated dolomite], (P.), B., 233. Magnesium carbonate, (P.), B.,

Hardin, L. J., and Oldham, F. D., properties of quenched and unquenched calcium silicate slags, and effects of their admixtures with phosphatic fertilisers, B., 341. Phosphate fertiliser mixtures, B., 805.

McIntosh, F. C. See Irving, L. McIntosh, I. G. See Shorland, F. B.

McIntyre, G. H., and Bevis, R. E., frit solubility. I. Comparison of methods of determination and relation of soluble salts to enamel slip consistency, B., 1040.

and Gerdes, P. E., effect of neutralising solutions on groundcoat draining, B., 1040.

McIntyre, J., machines for grinding material such as chocolate, paint, etc., (P.), B., 175.

McIntyre, L. See Booth, H. S. McIntyre, P. F. See Fingland, J. J. MacIsaac, V. W., centrifugal method and apparatus [for mixing of liquids], (P.), B., 578.

McIvor, G. A. B. See Cathode Corp.

Mack, C., physico-chemical aspects of asphalt pavements; energy relations at interface between asphalt and mineral aggregate and their measurements, B., 148.

Mack, G. L., determination of contact angles from measurements of the dimensions of small bubbles and drops. I. Spheroidal segment method for acute angles, A., 446. State of ascorbic acid in plant tissues, A., 1429.

and Kertesz, Z. I., vitamin-C in vegetables. III. Oxidation of ascorbic acid by metallic catalysts, A., 1567.

and Lee, (Miss) D. A., determination of contact angles from measurements of the dimensions of small bubbles and drops. II. Sessile drop method for obtuse angles, A., 446.

Tressler, D. K., and King, C. G., vitamin-C content of vegetables. II. Peas,

B., 856.

See also Tressler, D.K.

Mack, H. See Viehoever, A.

Mack, M.J., Fellers, C.R., Maclinn, W.A.and Bean, D. A., vitamin-C content of dairy orange beverages, B., 856.

Mack, P. B. See Cohen, B., Forbes, W. M., Hale, M. D., Phillips, C. R., and Ramsey, E. C.

Mack, R. T. See Edelman, P. E.

Mack, W. B., and Stout, G. J., effects of nutrients on water relationships of tomato plants, B., 1116.

McKaig, \bar{N} ., jun., and Fort, C. A., composition of juice from Louisiana sugar cane injured by the sugar-cane borer and red-rot disease, B., 517.

See also Fort, C. A.

McKay, A. T., lastometer for testing sheet materials [leather, fabric, etc.], B., 244. Index of quality for vegetable-tanned sole leather, B., 948.

McKay, C. R., Smith, J. H., and Sinclair Refining Co., refining of mineral oil, (P.), B., 1189.

McKay, E., photosynthesis in Grimmia montana, A., 392. MacKay, E. M., and Barnes, R. H., fasting

ketosis in the pregnant rat as influenced by adrenalectomy, A., 1542.

Bergman, H. C., and Barnes, R. H., comparison of influence of fasting on tolerance to glucose and galactose, A., 235. Rate of absorption of glucose from the intestinal tract of the rabbit, A., 236.

and Lamson, R. W., urea as solvent for

antigen extracts, A., 1532. and MacKay, L. L., relation of the urinary chloride rate to the plasma concentration before and after administration of sodium chloride, A., 1412.

and Oliver, J., renal damage following ingestion of diet containing an excess of inorganic phosphate, A., 101.

See also Barnes, R. H., Sherrill, J. W., and Smith, F. M.

McKay, H. A. C., generalised thermodynamic notation, A., 29.

See also Craxford, S. R., Frisch, O. R., and Gatty, O.

Mackay, J. G. See Avon India Rubber Co. MacKay, L. L. See MacKay, E. M.

McKay, R. J., properties of nickel electro-deposits, B., 1044.

McKay, W. B. See Imperial Chem. Industries. McKean, J. B., determination of iodine

in kelp, B., 232. McKean, J. G., and Jones, R. F., pottery and like kilns, (P.), B., 643, 1153. McKee, H. H. See Swift & Co.

McKee, R. H., sulphite[-pulp] cooking liquor, (P.), B., 927. and Blengsli, H. L., refining of tall oil,

B., 1215.

and Morse, E. H., treatment of vegetable fibres [to simulate wool], (P.), B., 1086.

and U.S. Hydrogenation Corp., conversion and hydrogenation of heavy petroleum oils, (P.), B., 1190.

and Wilhelm, R. H., catalytic vapourphase nitration of benzene, B., 779. and Winter, E. A., recovery of carbon dioxide from wasto gases, (P.), B.,

McKee & Co., A. G. See Lodge-Cottrell Ltd.

McKeefe, E. P. See Bradley, L.

McKeehan, L. W., and Clash, R. F., jun., directions of discontinuous changes of magnetisation in a rotating monocrystal of silicon-iron, A., 145.

and Elmore, W. C., surface magnetisation in ferromagnetic crystals, A., 275.

McKellar, A., relative abundance of silicon isotopes, A., 5.

McKellar, E., and Cooper, R. R., activating treatments of bentonites and subbentonites for filtering and decolorising purposes, (P.), B., 1038.

McKenna, M. H. See Müller, Ralph H. McKenna, P. M., tantalum carbide;

its relation to other hard refractory compounds, B., 995.

and Vanadium-Alloys Steel Co., composition [sintered alloy], (P.), B., 999.

McKenzie, A., and Luis, E. M., isomeric. optically inactive menthyl mandelates; new type of racemism, A., 844.

and Pirie, D. J. C., Walden inversion.
XIII. Configurative relationship between optically active desylamine and benzoin, A., 726. Stereochemical investigations in the anisoin group, A., 727.

McKenzie, B. M., storage of eggs, (P.), B., 170.

Mackenzie, C. D., dietary and other factors influencing yield and composition of cow's milk, B., 426.

McKenzie, H. L., life history and control of gladiolus thrips in California, B., 247.

McKenzie, J. P. Sco Suter, C. M. Mackenzie, R. D., and Findlay, G. M. production of a neurotropic strain of Rift Valley fever virus, A., 385.

Mackenzie, T. B., engineering aspects of the first report of the Blast-Furnace Practice Sub-Committee, B., 456.

McKeown, A. See Durrant, G. G. McKeown, C. G., See Norton's (Tividale),

Ltd. McKeown, J. See Du Pont de Nemours

& Co., E. I.

McKeown, T. H., and Lee, G. A., colour oxides and methods employed in colour matching, B., 496.

Mackerras, I. M. See Freney, M. R.

Mackerras, M. J. See Freney, M. R. McKibbin, R. R. See Dyck, A. W.

Mackie, A. See Shoesmith, J. B. McKie, D., Thomas Cochrane's MS. notes

of Black's chemical lectures, 1767-1768, A., 698. Béraut's theory of calcination (1747), A., 1086.

McKie, P., and Barnett, J., nitrogen metabolism of the pea seedling, A., 907. Mackie-Henkels, Inc. See Malisoff, W. M. McKinley, D. W. R. See Pitt, A.

McKinley, J. M., and North American Refractories Co., silicious refractory, (P.), B., 990.

See Nat. Aluminate Corp.

McKinley, R. W. See Griffin, R. C.

McKinnell, J. See Armstrong, Whitworth & Co. (Engineers), Ltd.

Mackinney, G., plastid pigments of marsh dodder, A., 259.

McKinney, H. H., inhibiting influence of a virus on one of its mutants, A., 258.

Mackinney, H. W., and Hibbert, H., lignin and related compounds. XXI. Insoluble methanol lignin, A., 609.

McKinney, R. M. Sce Booze, J. E.

McKinney, R. S., and Jamieson, G. S., analysis of tung fruits grown under different conditions in Mississippi, B., 749. Composition of oiticiea oil, B., 749. Determination of the lint on cottonseed and the cellulose in hull fibre, B., 782.

See also Jamieson, G. S.

McKinnon, H. L., First, M. E., and Bartlett & Snow Co., C. O., apparatus for blending and at a (P.) P. 272 ing sand, etc., (P.), B., 256.

McLachlan, D., jun., machine for drawing pole-figures directly from X-ray diffrac-

tion patterns, A., 1223.

MacLachlan, J. C., MacLachlan, J. M., and Hunt, A. P., [spray] drying of liquid and semi-liquid materials, (P.), B., 578.

MacLachlan, J. M. Seo MacLachlan. J. C.

MacLachlan, P. L., fat metabolism in plants with special reference to sterols. I. and II., A., 532, 908. Liver-lipins of the white rat following chloroform poisoning, insulin administration, and fungus infection, A., 1550.

McLachlan, T., detection of formaldehyde in milk, B., 120. Influence of calcium in decay of wood, B., 546, 792. Weather-

ing of buildings, B., 740.

Maclachian, W. W. G., Permar, H. H., Johnston, J. M., and Kenney, J. R., effects of quinine derivatives in experimental Preumococcus studies, A., 384.

MacLang, J., and Coffex Akt.-Ges., caffeine-

free coffec, (P.), B., 1233. MacLaren, F. H. See Standard Oil Co. McLaren, J., curling of paper, B., 539. McLaren, M. W. See Cole, H. W.

Maclaren, S. F. M. See Snyder, F. H. McLaughlin, A. I. G. See Doig, A. T. McLaughlin, D. B., attrition mill, (P.), B.,

672.

Maclaurin, J., decalcomania prints and papers, (P.), B., 736. Decalcomania paper, (P.), B., 1203.

McLaurin-Jones Co. See Davis, L.

McLay, G. S., rotating-hearth furnaces, (P.), B., 721.

Maclean, A., sodium chloride in diphtheria,

McLean, Andrew, and Adams, Roger, tetradeuterosuccinic acid and derivatives, A., 823.

See also Kunz, J.

McLean, F. C., Barnes, B. O., and Hastings, A. B., relation of the parathyroid hormone to state of calcium in blood, A., 526.

MacLean, G., jelly manufacture, (P.), B., 619.

McLean, H. C., Weber, A. L., and Endowment Foundation, removal of spray residue from fruit, (P.), B., 523.

Maclean, I. S. See Nunn, L. C. A.

MacLean, J. D., manual of preservative treatment of wood by pressure, B., 62.

McLean, J. H. Seo Keffler, L. J. P. McLean, R. Seo Franseen, C. C.

McLean, R. C., and Hutchings, L. R., streamline flow and movement of solutes in the transpiration stream, A., 393.

Maclean, R. K., rubber[-bitumen] compositions, (P.), B., 1114.
McLean, W., determination of phosphorus

in soils, B., 851.

McLennan, A. See Hartridge, O. C.

McLennan, (Sir) J. C., superconductivity and other low-temperature phenomena, A., 147.

and Rann, W. H., radioactivity of some rare-earths induced by neutron bombardment, A., 6.

Maeleod, D. B., theory of viscosity of liquids, A., 788.

Macleod, F. L. See Brodie, J. B. MacLeod, G. See Funnell, E. H., and

Vahlteich, E. McC. MacLeod, G. F. See Pyenson, L.

Macleod, J. See Ponder, E. McLeod, J. H., new lines in the ultraviolet spectrum of atomic iodino, A., 916.

McLeod, W. G., characteristics of English [-pressed] cottonseed oil, B., 749.

Maclinn, W. A., and Fellers, C. R., vacuum determination in all-glass [food] canning jars, B., 473.

See also Mack, M.J.

McLoughlin Textile Corporation. See Putnam, G. I.

McManus, M. A. Sco Rowe, A. W. McMaster, L., and Bruner, W. M., benzyl-

ation of phenol, A., 719. and Noller, C. R., formation of amides from nitriles by the action of hydrogen

peroxide, A., 194.

MacMasters, M. J., Abbott, J. E., and
Peters, C. A., effects of some factors on rhythmic crystallisation, A., 284.

Macmillan, D. See Glattfeld, J. W. E. McMillan, E., absorption measurements of hard y-rays from fluorine bombarded by protons, A., 402. Production of X-radiation by very fast electrons, A., 1311.

See also Birge, R. T., and Livingston,

McMillan, J. A., and Hanley, F., effect of sowing fertilisers in contact with seed of barley and sugar beet, B., 467.

McMillan, W. A., azeotropic mixture of acetylene and ethane at atmospheric pressure, A., 1229. Analytical fractionation of hydrocarbon gases, B.,

Cole, H. A., and Ritchie, A. V., determination of gascous olefines or hydrogen by catalytic hydrogenation, B., 435.

Sec also Texas Co.

McMinis, A. S. See Manville, I. A. McMullan, O. W., endurance of case-

hardened gears, B., 839.

McMullan, S. See Western Electric Co.

McMullen, C., and Carborundum Co., refractory products, etc., (P.), B., 371.

McMullen, C.J. See Lueth, H.C. MacMullen, C.W. See Smith, L.I. MacMullin, R.B., Cunningham, G.L., and

Mathieson Alkali Works, Inc., conversion of sodium sesquicarbonate into sodium [carbonate] monohydrate, (P.), B., 592. Nitrogen-free alkali carbonates, (P.), B., 1037.

MacMullin, R. B., and Mathieson Alkali Works, alkali carbamates, (P.), B., 18. Double carbonates of sodium and ammonium, (P.), B., 273. Manufacture of alkali carbonates and hydroxides and recovery of ammonium chloride, (P.), B., 452. Sodium carbonate monohydrate, (P.), B., 884.

See also Mathieson Alkali Works. McMurdie, H. F., and Insley, H., quaternary system CaO-MgO-2CaO, SiO₂-5CaO,3Ål₂O₃, A., 937.

McMurray, R. L., volatile oil from western yarrow, A., 1037.

See also Vincent, H. C.

McNab, J. G. See Kharasch, M. S. McNab, M. C. See Kharasch, M. S. McNabb, J. W. See McNabb, W. M.

McNabb, W. M., and McNabb, J. W., guido for crystal drawing, A., 583.

See also Bloom, A., and Deischer, C. K.

McNally, $J.\ G.$ See Eastman Kodak Co. McNally, $J.\ O.$ See Standard Telephones & Cables.

McNally, W. D., and Bergman, W. L., silica content of lungs of infants and of placental tissue, A., 1533.

McNamee, P. D., oxidation of sewage by activated sludge, B., 957.

See also Theriault, E. J.
McNary, R. R. See Midgley, T., jun.
Macnaughtan, D. J., and Haigh, B. P., mechanical properties of tin-base alloys, B., 151.

and Hedges, E. S., corrosion of tin, B., 549.

See also Baier, S.

McNeal, D. R. See Andale Co. McNeight, S. A., and Smyth, C. P., nonrotation of molecules in a number of solids, A., 1322.

See also Smyth, C, P.

McNeil, C., bulk evaporators, (P.), B., 3. McNeil, J., new heat-treatable alloys containing nickel, B., 549. McNeil, W. M. See Randel, W. S.

McNeill, D. See Grove Mill Paper Co. MacNevin, W. M. See Kolthoff, I. M.

McNew, G. L., and Bliss, D. E., control of cherry yellow-leaf on nursery stock,

McNutt, J. D., and Winchester Repeating Arms Co., priming mixture, (P.), B., 699, 717, 910.

Macovski, E., ammonium salts containing the cetyl radical, A., 613. Sec also Candea, C.

Macpherson, H. See Sutton Manor Collieries.

MacPherson, H. G. See Brode, R. B.McQuade, J. D., and Kemet Labs. Co., clean-up agent [for thermionic valves], (P.), B., 1104.

McQuaid, H. S. See Grasselli Chem. Co. McQuarrie, I., Thompson, W. H., and Anderson, John A., effects of excessive ingestion of sodium and potassium salts on carbohydrate metabolism and blood pressure in diabetic children,

A., 1539. See also Stoesser, A. V.

McQueen, H. S., economic application of the insoluble residue method, A.,

MacQuigg, C. E., and Electro Metallurg. Co., alloy-steel railway track member, (P.), B., 153.

McQuillen, A. See Clemo, G. R. McRae, D. R. See Foster, J. S.

Macrae, J. C., safety device for use with gas-heated Soxhlets, A., 306.

and Wandless, A. M., separation of plant remains from durain by mechanical means, B., 224.

McRae, R. J., and Radial Hydrocarbon Processes, treatment [conversion] of hydrocarbon oils, (P.), B., 262.

McRae, W. R., Toronto method of reclaiming oil, B., 52.

Macre-Patton, P., increase in production of molybdenum, B., 413.

MacRill, J. R., and California Fruit Growers Exchange, wax emulsions, (P.), B., 779.

McRoberts, J. W., reaction of duodenal content after exclusion of bile from duodenum, A., 1537.

McShan, W. H., and Turner, C. W., purification of galactin, the lactogenic hormone, A., 902.

McTaggart, A., Hartley, W., Paltridge, T. B., and Mair, H. K. C., grasses, B., 806.

MacTaggart, E. F., Margetson, O., and Jointless Walls & Ceilings, Ltd., composite plaster boards or slabs for build-

ing purposes, (P.), B., 21. See also Jointless Walls & Ceilings, Ltd. Macura, H., and Altmann, E., self-acting arrangement for uniform continuous elevation of temperature of electrical

heating apparatus, B., 1050. McVay, T. N., physical-chemical reactions

in firing whiteware, B., 835. McVicar, G. A. Sco Cleghorn, R. A. Macwalter, R. J. See Drummond, J. C.

McWaters, L. S. See Martin, L. F. McWhorter, M. T., and Hiestand, J. R., sizing and separating fines, (P.), B., 1072.

McWhorter, O. T., response of sweet cherry trees to zinc sulphate treatment for little leaf, B., 247.

MacWood, G. E., and Urey, H. C., Raman spectra of the deuteromethanes, A., 1050.

See also Teal, G. K.

Macy, H., and Herreid, E. D., cheesy flavours in unsalted butter, B., 1230. See also Downs, P. A.

Macy, I. G. See Hunscher, H. A.

Macy, R., surface tension by the ring method, A., 306.

Maczkowske, E. E., rapid determination of silica in Portland coment, B., 991.

Madaus, F. See under Madaus & Co. Madaus, G. See under Madaus & Co. Madaus, H. See under Madaus & Co.

Madaus & Co., preparations containing active constituents of vegetable products, (P.), B., 299, 1127.

Madden, E. A., garden lawns and playing greens; establishment and maintenance, B., 115.

Maddock, A. J., absolute intensities in spectrum of a low-pressure quartz mercury-vapour discharge burner, As

See also Thermal Synd. Ltd.

Maddocks, C. B. Sco Brit. Industrial Solvents.

Maddocks, W. R., ternary system FeO-MnO-SiO₂, B., 741.

Mader, influence of refining on composition of must and wine, B., 214.

Madge, E. W. See Dunlop Rubber Co., and Internat. Latex Processes.

Madge, N. G., and United States Rubber Co., rubber thread, (P.), B., 512.

Madgin, W. M. See Burnham, W. R., and Luke, K. D.

Madinaveitia, $J_{\cdot,\cdot}$ desmotropy of the phenols as exemplified by Clemmensen reduction,

Madison, R. R., fibrinelysis by streptococci of human and animal origin, A., 525. Carbohydrate-fibrinolytic linking Streptococcus hamolyticus, A., 525. Fibrinolytic streptococci from lower animals, A., 525. Susceptibility of hybrid "fibrins to Streptococcus fibrinolysins, A., 525.

Madsen, C. B., radioactivity determined

by counter tubes and ion compensation

amplifier, A., 1172.

Madsen, J. See Hostgaard, J.

Madsen, L. L. See Maynard, L. A.

Mächler, W., influence of pressure and temperature on the recombination coefficient and ionisation by γ -rays in air and carbon dioxide, A., 541.

Maeda, R., determination of nitrides in steel by the combustion method, B., 323.

Maeda, S. Sec Uchida, S. Mäder, H. Sec Vogel, R.

Maehara, K., blood-sugar tolerance test in hypertension, A., 1540.

Mantylä, V. See Simola, P. E. Maes, P., nitrogen determination by ter Meulen's method, A., 493.

Maetz, O., lchrs for annealing glassware, (P.), B., 595.

Maffei, A., adsorption of lime on silica gels, A., 933. Surface activity of puzzuolana, B., 103.

Maffia, A. J., flux for silver-soldering stainless steel, (P.), B., 25.

Magara, M., oxidation-reduction potential of tissues of the ovary: effect of urine on this potential, A., 225.

Magat, J., Abragam, D., and Magat, M., variations of the absorption spectrum of blood of leucæmic fowls after intravenous injection of a lecithinhydrogen peroxide complex, A., 240.

and Magat, M., ultra-violet spectrum of normal and leucemic blood, A., 1134. Magat, M., Raman spectrum and constitution of water, A., 1179.

Sco also Magat, J., and Moureu, H. Magee, M. C. See Cowie, D. M.

Magorl, J. See Rittmann, R.

Magheru, A. See Boivin, A., and Magheru, G. Magheru, G., Magheru, A., Boivin, A., and Mesrobeanu, L., "residual" antigen of B. coli, A., 384. See also Boivin, A.

Magid, A. M., and Roginski, S. Z., para-

hydrogen conversion on glass, A., 567. Magid, L. See Husa, W. J.

Co., E. I.

Magidson, O. J., and Grigorovski, A. M., acridine compounds and their anti-

malarial action. I., A., 484. and Schevelev, V. A., system p-nitrotoluene-2-chloro-4-nitrotoluene-2:6dichloro-4-nitrotoluene, A., 429.

Strukov, I. T., Bobischev, M. D., and Torf, S. F., synthesis of plasmocide $[8-(\gamma-N-diethylaminopropyl)ammo-6$ methoxyquinoline methylene bis-salicylate], A., 735.

and Travin, A. I., acridine compounds and their antimalarial action. II. Compounds with cyano- and methylthiol groups, A., 613. and Zilberg, I. G., oxidation of o-toluenc-

sulphonamide to saccharin, A., 87. Magill, P. L. See Du Pont de Nemours & Magistad, O. C., Farden, C. A., and Baldwin, W. A., bagasse and paper mulches [for soils], B., 466. See also Tam, R. K.

Magna Rubber Co., Ltd. See Talalay, J. Magnan, A., and Girerd, H., vitamin-A in red corpuscles of blood of vertebrates, A.,

Magnan, C. See Bierry, H.

Magnavox Co., and Barrett, J. J., electrodes for electrolytic condensers and similar apparatus, (P.), B., 203.

Magnesium Development Corporation. Sco Brown, R. H., Fischer, E. F., Michel, J. M., Moschel, W., Paine, R. E., Player, E., and Wood, R. T.

Magnesium Products, Inc., condensation of magnesium vapours, (P.), B., 202. Distillation of powdered [metallic] material, (P.), B., 746. Refining of magnesium, (P.), B., 939*.

See also Kemmer, F. R.

Magness, J. R., Degman, E. S., and Furr, J. R., soil moisture and irrigation investigations in eastern apple orchards, B., 292.

Magnus, A., ionic migration as a molecular-

kinetic problem, A., 31.

and Sartori, G., calorimetric investigation of adsorption of light and heavy hydrogen on active nickel, A., 560.

Magnus-Levy, A., multiple myeloma. IX. Crystalline and amorphous Bence-Jones protein, A., 1541.

Meyer, K. H., and Lotmar, W., diffraction of X-rays by Bence-Jones protein, A., 670.

Magoffin, J. E. See Bancroft, W. D. Magraw, D. A., and Copeland, L. E., deter-

mination of milk solids-not-fat in bread, B., 1229.

Mahajan, L. D., effect of light on surface tension of soap solutions. II., A., 284. Apparatus for measurement of surface tension, A., 955. Magnetic birefringence in solutions of organic substances, A., 1447.

Mahal, H. S., and Venkataraman, K., constitution of calycopterin, A., 209. Chromone group. XIX. Synthesis of genkwanin, A., 860. Mahanti, I. See Singh, B. K.

Mahe, R., supervision of potable water supplies on liners, B., 46.

Maher, C., tung oil in Kenya, B., 799. Maheu, J., and Weitz, R., seeds of the

Madagascar anthelmintic Combrataceæ, A., 1553.

Mahl, H., electron-optical images of emitting wires, A., 263.

and Pohl, J., electron-optical reproduction with electrons liberated photoelectrically, A., 1055.

and Schenk, D., influence of traces of slip planes on glow emission. II., A., 1188.

Mahler, G. T. See Bunce, E. H., and Ginder, P. M.

Mahlow, rectification of spirits, B., 167. Mahncke, H. E., and Noyes, W. A., jun., XXII. Effect photochemical studies. of radiation of wave-length 1980-1860 A. on cis- and trans-dichloroethylene, A., 944.

See also Rakestraw, N. W. Mahoney, J. C., and Alco Products, Inc.,

vapour condenser, (P.), B., 432. Mahoney, W., and Sheehan, D., effect of total thyroidectomy on experimental diabetes insipidus in dogs, A., 231.

9

Mahr, C., inorganic complex compounds in analytical chemistry. III. Detection and determination of copper. IV. Detection and determination of mercury, A., 179, 579.

Mai, S. W. Sec Tseng, C. L.

Maiden, A. M. Sec Keffler, L. J. P.

Maier, C. G., and Swift, T. B., ores [burnt

pyrites] for reduction [to sponge iron], (P.), B., 106. Apparatus for production of hot reducing gases, (P.), B., 969.

Maier, F., impurities of hydrofluoric acid,

B., 144. Maier, J. See Knoop, F.

Maier, K., and Siemens & Halske A.-G., magnetic [core or sheath] body, (P.), B., 157.

Maier, L., Tzukerman, L., and Luisenko, P., flotation concentration of coal to be used for electrode carbon, B., 5.

Maier-Bode, H., pyridine. XXI. Preparation of 3-aminopyridine from 3:5diaminopyridine, A., 998.

See also Binz, A.

Maier-Leibnitz, H., coincidence experiments with neutrons and y-rays of beryllium, A., 1441.

See also Bothe, W.

Maige, A., amylogenic capacity and organic matter of plastids, A., 531. Physicochemical properties of plastid stroma and imbibition, A., 648.

Maignon, F., polypeptidæmia during anaphylactic shock, A., 356. Vitamins and tissue-diastase in relation to organ

function, A., 529.

Mailänder, R., comparative impact tests on small [steel] specimens with notches of various depths and diameters, B., 1155. Relation between results of static and dynamic bending tests on notched [steel] bars, B., 1155. Notch-sensitivity of steel under alternating stresses, B., 1210.

and Bauersfeld, W., effect of size and shape of test-piece on torsion strength

of steel, B., 196.

and Ruttmann, W., influence of surface condition, edge layers, and corrosion on fatigue strength, B., 150.

See also Ruttmann, W.

Maillard, A., system methylamine-calcium chloride, A., 1204. Solution of asphaltic deposits under pressure, B., 727. Maillard, J. See Delavenna, L.

Maillard, L. C., and Ettori, J., microdetermination of titanium in the organism by extraction and photometry, A., 652. Titanium content of mammals, A., 1011. Distribution of titanium in the tissues, A., 1011.

Main, C. See Culbertson, J. B. Main, J. A., withering of tea, (P.), B., 218.

Main, S. A. See Hadfield, (Sir) R.
Maines, W. W. See Metzger, F. W.
Mains, G. H. See Westinghouse Electr. &

Manuig. Co. Mainzer, F., and Joël, W., habituation to insulin, A., 1302.

Maiofis, L. S., Schusterovich, G. M., and Bibikov, N. N., electrothermal production of carbon tetrachloride, B., 1032.

Mair, B. J., and Schicktanz, S. T., composition of petroleum wax, B., 1077. Schicktanz, S. T., and Rose, F. W., jun., apparatus and methods for investigating chemical constitution of lubricating oil, and preliminary fractionation of lubricating oil fraction of a Midcontinent petroleum, B., 308.

Mair, H. K. C. See McTaggart, A. Mair, T. G. See Oldham & Son.

Maisel, H. J., necessity, kind, and amount of nutrient additions, as artificial fertilisers, for meadows and pastures, B., 1115.

Maisin, J., and Coolen, M. L., carcinogenic power of methylcholanthrene, A.,

and Pourbaix, Y., growth-promoting and growth-inhibiting substances of normal organs, A., 230. and Robert, F., prophylaxis of benz-

pyrene cancer with organic peroxides, A., 1539.

Maitland, P., constitution of tannins including those of tea and coffee, A., 911.

and Mills, W. H., resolution of an allene hydrocarbon into optical antipodes by

asymmetric catalysis, A., 1100. ra, A. T. See Bandopadhyaya, G. B.

Maitra, S. R. See Basu, N. M. Maitra, S. S. See Mitter, P. C.

Maiuri, G., refrigeration, (P.), B., 2.

Maiwald, K., and Frank, A., rôle of potassium in production of plant substance, A., 257.

Maizels, M., anion and cation contents of normal and antemic blood, A., 876.

Maj, S. See Broniewski, W. Majantz, A. D. See Gutman, M. I.

Majer, V., polarometric titrations, A., 579. Polarometric precipitation precipitation titrations with dropping mercury cathode, A., 579. Determination of mercury in air and absorption of mercury vapour by means of metallic gold, A., 1353.

Majerus, V. H. See Bowen, H. H. Majewicz, T. See Dziewoński, K. Majima, S., intermediary metabolism of tryptophan. XX. Production of indole from tryptophan derivatives by B. coli. XXI. Biological production of d-tryptophan, A., 1544.

Majoewskij, W., determination of bacterial quality of milk, B., 168.

Major, R. H., cutaneous absorption of insulin, A., 1565.
Major, R. T., and Bonnett, H. T., prepar-

ation and properties of d- and l- β methylcholine N-chloride O-acetate, A., 194. Preparation and properties of β -n-alkylcholine chlorides and their acetyl esters, A., 319.

Cline, J. K., and Merck & Co., salts of acetylcholine, (P.), B., 1129.

and Merck & Co., Inc., p-sec.-alkylaminophenols, (P.), B., 91. p-N-sec.-Alkylaminophenols and other substituted phenols and their salts, (P.),

See also Ladenburg, K.

Majrich, A., fuses, B., 525. New solvent for fulminates and azides, B., 621. and Sorm, F., brisance and its determin-

ation, B., 45.

Majumdar, S. K. See Wulff, P. Majumdar, V. D., and Vajifdar, M. B., viscosity of air and electronic charge, A., 1454.

Makarević, O. B. See Lewin, A. E. Makarieva, S. P., and Birükov, N. D., hardness of electrolytic chromium. II. Influence of current density and temperature on solubility of hydrogen in chromium and on its hardness, B.,

Makarov, S. Z., and Drushinin, I. G.,

Lake Ebeity, A., 1482. and Enikeev, D. R., dehydration of Glauber's salt by means of brine, B., 639.

See Makarova-Semljanskaja, N.Schorigin, P. P.

Makashina, A. N. See Andreev, N. Z.

Makepeace, A. W., Corner, G. W., and
Allen, W. M., effect of progestin on the in vitro response of the rabbit's uterus

to pituitrin, A., 1428. Maki, T., vat dyes of the benzanthrone series. XV. Synthesis of 5-methoxybenzanthrone and 5:5'-dimethoxyviol-

anthrone, A., 338. and Aoyama, T., vat dyes of the benzanthrone series. XVI. Constitution of

dichlorinated violanthrone and preparation of some new Bz-3:3'-violanthrone derivatives, A., 338.

and Nagai, Y., vat dyes of the benzanthrone series. XIII. and XIV. 6:6'and 8:8'-Derivatives of isoviolanthrone,

Nagai, Y., and Hayashi, Y., vat dyes of the benzanthrone series. XVII. Preparation and purification of dinitro-violanthrone. XVIII. Constitution of dinitroviolanthrone, A., 338.

Makino, K., nuclein metabolism. VI. Constitution of nucleic acids, A., 96. Structure of deoxyriboside of thymusnucleic acid, A., 193.

and Imai, I., chemistry of the antineuritic vitamin, A., 487.

Makino, S., discharge characteristics of the dry cell, B., 554.

Makkink, J. P. See Waterman, H. I.

Makovetzki, A. E., distance between mole-

cules and determination of the volume in the liquid state (by density), A.,

and Chovanskaja, O. S., purification of clay of the Tartar Republic and extraction of alumina, B., 192. Decomposition of clay by flue gases, B.,

and Olesov, V. G., extraction of zinc with sulphuric acid from unroasted lead-zine sulphide ore of Kantaga by the Makovetzki method, B., 324.

and Ostroumov, M. A., solubility of phosphoric acid, A., 25.

Makoviecka, M., fluorescence and duration of emission of fluorocyclene, A., 778.

Makray, I. See Varga, J. Makrycostas, K. See Boller, R.

Makushinskaja, N. See Ruibak, B. Malachov, V. F., drying of substances decomposing when heated, A., 811.

Malachowski, R., Bilbel, E., and Biliński-Tarasowicz, M., mechanism of the condensation of benzylmalonic ester with fumaric ester; Michael's reaction, A., 967.

Malachta, S. See Votoček, E. Malaguzzi-Valeri, C. See Mazza, F. P.

Malaguzzi-Valeri, O., effect of heterogeneous formolised transfusion in experimental anæmia from bleeding in the rabbit, A., 363. Effect of transfusion of heterogeneous formolised blood in experimental acetylphenylhydrazine

anæmia in the rabbit, A., 363.

Malan, A. I., Du Toit, P. J., and Groenewald, J. W., mineral metabolism.

XXXIII. Iodine in nutrition of sheep. II., A., 889.

See also Du Toit, P.J.

Malan, G. G. H. See Malan, J.

Malan, J., Malan, G. G. H., and Cape Explosive Works, Ltd., porous silica gel, (P.), B., 542.

Malandrucco, I., chemico-toxicological detection of physostigmine, A., 536.

Malanowski, S., pressure solvent filter, (P.), B., 961.

Malatray, H. See Lambret, O.
Malby, S. G. See Aluminum Co. of America.
Malcolm, V. T., and Chapman Valve Manufg. Co., treatment [nitriding] of ferrous metals, (P.), B., 153.

Maldura, C. M., chemical and biological aspects of Orbetello lagoon water.

I. and II., A., 183.

Maleeffa, E. See Plissov, A. K. Malenke, E. See Frey, A. Malerczyk, W. See Ohle, H.

Malette, J., colouring agents for use in microscopical examination of carbon steels, B., 373.

Malevinskaja, E. See Nevrev, M.

Malherbe, G.J. See Shell Development Co. Malianc, A.A. See Malischek, V.T.

Maligin, A. A., universal colorimeternephelometer, A., 46.

Malin, K. M., ways of decreasing the volume of Gay Lussac towers, B., 930.

Malinite Corporation. See Malinovski, A. Malinite Products, Inc. See Malinovski, A. Malinkina, A. S. See Pankov, G. A.

Malinovski, A., Bennett, A. L., and Malinite Products, Inc., red glaze, (P.), B., 990. and Malinite Corp., ceramic products composed mainly of silica, magnesia, and alkalis, (P.), B., 1207.

Malinovski, A. È., period of induction in the inflammation of gas mixtures,

A., 1072.

and Jegorov, K. E., influence of a longitudinal electric field on combustion processes in flames, A., 1469.

Naugolnikov, B. I., and Tkatschenko, K. T., pressure and ionisation in the front of the explosion wave in the pre-

detonation period, A., 568. and Rossichin, V. S., spectral analysis of the flame of an acetylene-air mixture in an electric field, A., 572.

and Skrinnikov, K. A., ignition of hydrogen-chlorine gas [mixtures] by high-velocity electrons, A., 567.

Malinovski, M. S., colorations given by phenols with nitrous acid, A., 219. Decomposition of aromatic arsines in the Friedel and Crafts reaction, A., 491.

Malinovski, V. E., and Novikova, V. P., sucroso precipitation from final molasses by barium hydroxide, B., 1120.

Malinovski, V. S., action of alkyl iodides on heterocyclic organic arsenic compounds. I., A., 89.

See also Razuvaiev, G. A.

Malis, L., and Jacyna, V., thermodynamic law of action and reaction, A., 936.

Malischek, V. T., and Malianc, A. A., sulphur bacteria in the "pink" waters of the Surakhani eilfields and their significance in geochemistry of water, A., 48.

Malischev, V.J. See Landsberg, G.

Malishev, B. W., phosphorus pentoxide as a refining agent for gasoline, B., 307. Polymerisation of ethylene with phosphorus pentoxide, B., 677. Desulphurisation of hydrocarbons with carbon monoxide, B., 775.

See also Bataafsche Petroleum Maats., and Shell Development Co.

Malisoff, W. M., [determination of] chlorine in organic compounds. I. Rapid lamp method, A., 218.

and Atlantic Refining Co., refining of hydrocarbon oil, (P.), B., 969. Sulphur removal from hydrocarbon oils, (P.), B., 1080.

and Mackie-Henkels, Inc., stable colloidal solution of iodine, (P.), B., 1068. and Stenbuck, F. A., effect of short electric waves on sterol colloids, A., 1291.

See also Atlantic Refining Co. and

Flosdorf, E. W.
Malitzeva, A. E. See Andreev, N. Z.
Malkin, I. M. See Poljakov, M. V.
Malko, M. G. See Hynes, W. A.

Malkomes, W. See Koppers Co. of Delaware. Malkov, A. M., rapid autolysis of yeast as a means of determining its keeping qualities, B., 389.

Malkovitsch, K. A. See Gadaskina, N. D. Mallery, T. D., changes in osmotic value of the expressed sap of leaves and small twigs of Larrea tridentata as influenced by environmental conditions, A., 648.

Mallet-Guy, P. See Chambon, M. Mallett, J. P., and Dimm, C. M., oil gas,

(P.), B., 628. Mallinckrodt Chemical Works. See Whit-

more, F. C. Mallinckrodt-Haupt, A. S. von, and Carrie, C., fungus fluorescence in vitro, A., 523. Mallison, H., so-called free carbon of

bituminous coal tar, B., 483. Binding power of road tar, B., 499.

Mallmann, W. L., and Hepler, J. M., comparative study of [American] standard methods of water analysis (1933) and 2% bile-brilliant-green-lactose broth confirmation [of the coli-aerogenes group], B., 526.

Malloch, E. S., and Baltzer, C. E., wood fuel burning tests, B., 580.

Malloch, J. G. See Geddes, W. F. Mallory, F. B., aniline-blue collagen stain, A., 1307.

Mallory, G. E., and Valaer, P., "acid hydrolysis" method for opium analysis,

Mallory & Co., Inc., P. R., electrolytic condensers, (P.), B., 892, 940, 1051. Compositions for use in applying hard facing material to metal articles, (P.), B., 1046.

See also Sieger, G. N.

Malm, C. J. See Eastman Kodak Co.

Malmberg, M., increase in length in rats receiving vitamin-A, A., 118.

and Euler, H. von, increase in weight due to [feeding of] wheat, oats, and barley to rats on a vitamin-A-free diet, A., 628.

See also Euler, H. von.

Malmquist, A. K., canning [of fruit], (P.), B., 1176.

Malmquist, D., photographs of axial figures of opaque minerals in infra-red, A., 959. Maloeuf, N. S. R., nitroprusside reaction as a test for reduced glutathione, A.,

1137. Malone, J. F. J. See Malone Instru-

ment Co. Malone, J. Y., adhesive [containing rubber], (P.), B., 113.

Malone Instrument Co., Ltd., and Malone, J. F. J., distance thermometer, (P.), B., 576. Apparatus for indicating relative density of a gas or mixture of gases, (P.), B., 579. Maloney, A. H., contradictory actions of caffeine, coramine, and metrazole, A., 1145. Pharmacological action of coriamyrtin, A., 1416.

Malorny, G. See Podolsky, F.

Malowan, J. E. See Moose, J. E.

Malozemoff, P., flotation of galena and chalcocite of near-colloidal size with potassium [n-]amyl xanthate and amyl dixanthogen, B., 23.

Malquori, C., sulphur minerals for combating Oidium, B., 516.

Malquori, G., and Covello, M., hydrates of

quinine, A., 490.

Maltaner, E., reactivation of ammoniainactivated complement by leucocytes, A., 877.

Malthy, J. G. See Davis, W. A. Malter, L., anomalous secondary electron emission, A., 540.

Malterre, M. See Joret, G.

Malyoth, G., and Sommerfeld, E., fermentation of carbohydrates, A., 111.

Mamasachlisov, V. J., evaluation of the accuracy of Bethe and Peierls' formula concerning decomposition of the deuteron with y-radiation, A., 6.

Mamedaliev, I. G., ethylene dichloride and its preparation from pyrolytic gases, B., 631.

See also Potolovski, L.

Mameli, E., cubebin. VII. New structural formula proposed for cubebin. VIII. Identity of cubebinolide with hinokinin, A., 68.

Mamet, A. P. See Prochorov, F. E.

Mamoli, L. See Späth, E. Mamsurov, K. M. See Ageenkov, V. G. Mamuikin, P. S., lining materials for tube furnaces used for burning metallurgical powders, B., 933.

and Ogarinov, A. F., fused cyanite, B.,

Mamulov, S. A., and Maslov, J. K., testing asbestos cloth, B., 1050. See also Ravitsch, M. I., and Stender,

V. V.Man, E. B., and Peters, J. P., serum-lipins

in diabetes, A., 1540. Manahan, J. A. See Manawul Patent

Manawul Patent Corporation, and Manahan, J. A., obtaining fibres for textile purposes from plants, (P.), B., 981.

Manceau, P., Griffon, and Breton, R., introduction of lead into the body through certain drinks and preserved foods, B., 1066.

Policard, A. A., and Ferrand, M., determination of ascorbic acid, A., 1567.

Manchen, F. See Pestemer, M. Manchester, F. H., and Wingfoot Corp.,

abrasive wheel, (P.), B., 991. Manchey, L. L. See Jenkins, G. L. Manchot, W., and Manchot, W. J., ruthen-

ium carbonyls and nitrosyls, A., 576. Manchot, W. J. See Manchot, W.

Mandahl, T. F., and Svenska Ackumulator

Aktieb. Jungner, slit filter, (P.), B., 223. Mandal, K.L. See Neogi, P.

Mandelstam, L., and Leontovitsch, M., absorption of ultrasonic waves in liquids and related optical phenomena, A., 1330.

See also Landsberg, G.

Mandeno, J. L. See Andrew, R. L. Manders, C., paramagnetism of nickel alloys, A., 420.

Manderville, D. C. See Agarwala, R. N. Mandillon, G. See Espil, L.

Mandl, K., practical examples of corrosion, their cause and avoidance, B., 841.

Mandò, M. Sec Bernardini, G. Mandrik, G. T. Sec Postovski, J. J.

Manery, J. F., Welch, M. S., and Irving, L., post-mortal formation of lactic acid in muscles of seals, ducks, and hens, A., 887. Maneval, W. E., lacto-phenol preparations,

A., 535. Maney, T.J., and Plagge, H.H., production and physiology of Concord grape vines as affected by variations in the severity

of pruning, A., 1431.

Mangels, C. E., varietal and regional variation in durum-wheat starches, B., 517.

Mangili, G. See Ghiron, D.

Mangini, A., 1-chloro-3:4-dinitrobenzene series. IV., A., 616. Condensation of oximes with aromatic diazo-compounds, A., 838. Aromatic nitro-derivatives. VII. Reactivity of substituents and nuclear substitution in benzene deriv-VIII. 1-Bromo-3:4-dinitroatives. benzene, A., 975, 1244.

Mangold, E., can artificial fertilisers have an unfavourable effect on human and animal nutrition? B., 474. Organic and mineral nutrients in German

potatoes, B., 521. and Jänsch, H., cell membrane as hindrance to digestion of plant foods, A., 759. Failure of iodine-starch

reaction, A., 911.

Mangrane, D., comparison of extracted and refined with natural and refined, pressed olive oil, B., 799. Substitution of potassium for sodium and vice versa in alkaline soaps, B., 1164.

Mangubi, B. V., and Rubinstein, A. L., rapid determination of ash in coal and

coke, B., 258.

Manian, S. H. See Caldwell, M. L.

Manicatide, M., Bratescu, and Popa, M., determination of amylase in milk, A., 97. Manin, Y. See Levaditi, C.

Manjunath, B. L. See Jois, H. S., Kumaraswamy, O. N., and Spath, E.

Manley, J. H., nuclear spin and magnetic moment of potassium (41), A., 1039. and Millman, S., nuclear spin and magnetic moment of Li, A., 1175.

Manley, R. E. See Texaco Development Corp., and Texas Co.

Mann, A. See Kühl, Hans.

Mann, A. M. See Woodford, L. W.

Mann, C. A., organic inhibitors of corrosion, B., 743.

Lauer, B. E., and Hultin, C. T., organic inhibitors of corrosion; aliphatic amines, B., 323. Organic inhibitors of corrosion; aromatic amines, B., 1099.

Montonna, R. E., and Larian, M. G., sulphite turpentine, B., 649.

See also Larian, M. G.

Mann, D., determination of pyrethrins in drugs, extracts, and preparations, B., 347. Mann, F. C. See Flock, E., and Steg-

gerda, F. R. Mann, F. G., Crowfoot, (Miss) D. M.,
Gattiker, D. C., and Wooster, (Mrs.) N., structure and configuration of certain diaminopalladium compounds, A., 143.

and Purdie, D., constitution of complex metallic salts. III. Parachors of palladium and mercury in simple and complex compounds. IV. Bridged dipalladium derivatives, A., 140, 1184, 1496.

Mann, H., changes occurring in fat of bats during hibernation, B., 1104.

Mann, \bar{H} . B., relation of soil treatment to nodulation of peanuts, B., 164.

Mann, J. C. See Hanley, F.

Mann, K. E., susceptibility measurements for oxygen and inert gases, A., 416.

Mann, P. J. G., and Saunders, B. C., peroxidase action. I. Oxidation aniline, A., 462.

Mann, R. J. See Brit. Celanese.
Mann, T. See Lutwak-Mann, C., and Parnas, J. K.

Mann, W. B., and Newell, W. C., accommodation coefficient of deuterium, A.,

Manneback, C., partial calculation of the potential energy function of the benzeno molecule on the hypothesis of plane hexagonal symmetry, A., 142.

and Verleysen, A., provisional computation of the plane vibration frequencies of symmetrical deuteroethylenes, A., 1324.

Mannes, L. D., and Godowsky, L., jun., colour photography, (P.), B., 349, 1021. Photographic sensitive element, (P.), B., 763. Differential treatment of colourcomponent images, (P.), B., 1133.

Mannich, C., and Davidsen, II., simple cnamines with tertiary nitrogen, A.,

Handke, K., and Roth, K., formation of cnamines and alleneamines from aβunsaturated aldehydes and secondary bases, A., 1367.

and Schumann, P., 4-keto-3:5-dialkyl-piperidines, A., 1518. Tricyclic oxetone derivatives, A., 1519.

Manning, A. B., application of the theory of sampling to coal sampling, B., 224. and Taylor, A. A., colloidal fuel, B., 401.

Manning, M. F., and Millman, J., self-consistent field for tungsten, $\Lambda.$, 920.

Manning, P. D. See Peebles, D. D. Manning, P. D. V., oceans of raw material for magnesium compounds, B., 738.

Manning Co., Ltd., F. W., filtering apparatus, (P.), B., 577. Manns, T. F. See Russell, R.

Manolescu, (Mlle.) L. See Gheorghiu,

C. V.Manross, B., collector for fuller's earth, (P.), B., 257. Collector for revivifying fuller's carth, (P.), B., 257. Revivifier, (P.), B., 257.

Manschke, R., control of pea aphis, B., 423. Mansfeld, G., site and manner of action of thyroxine in the organism, A., 903.

Mansfeld, M., katadyn process and its uses in the food-stuff industry, [etc.], B., 297.

Mansfield, W. E., aluminium-base alloy, (P.), B., 797.

Mansfield, W. R. See New England Mica

Manske, R. H. F., alkaloids of Senecio species. II., A., 617.

and Leitch, L. C., synthesis of δ -3-indolyl-valeric acid; effects of indole acids on plants, A., 612.

See also Jackson, Richard W.

Manson, G. J., and Manson Chem. Co., [non-adhesive] rosin size, (P.), B., 30. Manson Chemical Co. See Manson, G. J.Manta, I., and Vancea, P., pharmaco-dynamics of bile acids; influence of

active groups. I. Cardio-vascular and respiratory action, A., 633. Mantel, W. See Schwarz, M. von.

Mantell, C. L., Allen, C. H., and Sprinkel, K. M., natural resins for the varnish industry, B., 68. Natural resins and their varnishes, B., 380. Physical and chemical changes in Congo resin during running, B., 1056. and Rubenkoenig, H. L., origin, applic-

ation, and properties of dammar,

B., 943.

Mantere, V. See Kauko, Y.

Mantovani, A., solidified milk, B., 216. Mantzell, E., cathodie current distribution in electrolytes. I. Zinc baths, A.,

Manuel, S. See Chevallier, A.

Manulkin, Z., composition of (c) A. juncea; (D) A. turanica, A., 1306.

Manunta, C., flavins in the vitellin and shell of silkworm eggs and in the tegument of yellow silkworms, A., 1287.

Manville, I. A., McMinis, A. S., and Chuinard, F. G., vitamin studies on apples, A., 906.

Manville Corporation. See Toohey, E. A. Manzi, L., behaviour of calcium and potassium in the blood-serum of castrated bitches following treatment with follicular hormone, A., 1157.

Manzini, C., and Costantini, E., mode of toxio action of excessive administration of thyroxine on liver, A., 387. Pathogenesis of histological alterations of the myocardium with excessive administration of synthetic thyroxine, A., 387. Histological lesions of liver with excessive administration of thyroxine, A., 387.

Manzoni, M. See Betti, M.

Manzoni-Ansidei, R., Raman spectrum of the isomerio chloronitrobenzenes, A., 10. Raman spectrum of dimethylfurazan and of dimethyloxdiazole, A., 664.

Seo also Bonino, G. B. Mapson, L. W. See Birch, T. W.

Mar, P. G., and Read, B. E., chemical examination of Chinese remedies for nightblindness, B., 812.

Maragliano, G. See Agnoli, R.
Marais, J. K., use of producer gas for motor vehicles, B., 726.

Marangoni, P. L. See Scoz, G.

Maranon, G., and Collazo, S. A., action of cortical hormone on choline metabolism, A., 643.

Marafion, J., nutritive mineral value of Philippine food plants (calcium, phosphorus, and iron contents), B., 473. Marbe, M. See Boivin, A.

Marble, A., and Smith, Rachael M., bloodlipins in lipemia retinalis, A., 1407. Exercise in diabetes mellitus, A., 1540.

Marble, D. R. See Hunter, J. E. Marble, J. P., lead-uranium ratio of siliceous pitchblende from Great Bear

Lake, N.W.T., Canada, and its possible age, A., 584. Possible age of monazite from Mars Hill, N. Carolina, A., 1357.

Marbo Products Corporation. See Kratz, E. M.

Marcel, M. See Demolon, A., and Geslin, H.

Marcelet, H., presence of hydrocarbons in the product removed by the deodorisation process during refining of olive oil, B., 557. Hydrocarbons removed in the deodorisation of arachis oil, B., 700. Marchand, R. See Médard, L.

Marchbanks, M. J. See King, S. G. H. B.

Marchesini, G. See Balbi, G.

Marchionini, A., and Böhning, F., poikiloderma atrophicans vasculare (Ĵacobi), A., 506.

and Hövelborn, C., effect of ultra-violet light irradiation on carbohydrate metabolism. I. Changes of bloodsugar and blood-diastase after total irradiation from the noonday sun, A.,

Marchlewski, L., and Skarzyński, B., absorption of ultra-violet light by organic substances. XL., A., 406.

Sce also Dabrowski, J., and Grünbaumowna, R.

Marcinków, A., and Płazek, E., 3-aminopyridine derivatives substituted in position 5, A., 998.

Sce also Płazek, E.

Marconi's Wireless Telegraph Co., Ltd., and Bloomenthal, S., electrical resistances and resistance materials, (P.), B., 747.

and Eddison, C., carbonisation of metals, (P.), B., 937.

and Orth, R. T., cathode-ray tubes, (P.), B., 1052.
and Young, A. J., electron-emitting

cathodes, (P.), B., 507.

Marconnay, A. von B., and Frantz, T., quartz goods-a German manufacture, B., 834.

Marcotte, E., thermal characteristics of cements, B., 61.

Marczewski, S., gelation of human scrum by bases, A., 877.

See also Kopaczewska, I.

Marder, M., knocking characteristics of fuels and engines, B., 83. Determination of the calorific value and ultimate composition of brown-coal oils, B., 626.

[with Hopf, and Frank, J.], applicability of physical constants for determination of the composition of fuels. I.-V., B., 1077.

Sec also Heinze, R.

Marderwald, E., production and testing of "Osnacid" cables, B., 554.

Mardles, E. W. J., tin compounds in lubricants, B., 728.

Marek, J., Wellmann, O., and Urbányi, L., chemical composition of the minerals of bone, A., 878. Composition of rachitic bone, A., healthy and

See also Binet, L.

1010.

Marenzi, A. D., variations of concentration of conjugated phenols in blood in passing different organs, A., 496. Chemical changes in the muscle of the hypophysectomised toad, A.,

and Bandoni, A. J., colorimetric microdetermination of eyanides; application to officinal preparations, especially to mercuric eyanide, A., 578.

and Banfi, R., phenols or glyoxalines in urine, A., 1537.

See also Banfi, R., and Gerschman, R. Marescotti, A. Sco Rossi, Giuseppe. Margaretha, H. Scc Eirich, F.

Margarit, A., cement and iron in the rotary kiln, B., 148.

Margaritov, V., influence of fillers on lightageing of vulcanised rubber; measurement of absorption of light-radiation of different wave-lengths and their influence on the ageing, B., 609. See also Frumkin, L.

Margenau, H., pressure effects of foreign gases on spectral lines, A., 3. Pressure effects in band spectra, A., 654. Natural width of the Ka lines, A., 1041. Relativity and nuclear forces, A., 1175.

and Pollard, E., progression of nuclear resonance levels with atomic number, A., 266. a-Particle scattering by deuterons and protons, A., 1313.

Margetson, O. See Jointless Walls Ceilings, Ltd., and MacTaggart, E. F. Margolin, J. M. Scc Messkin, V. S.

Margolina, J. L. See Farberov, M. I. Margolina, S. S. See Tschishikov, D. M.

Margolis, E. I., contact transformation of cis- and trans-dimethylcyclohexane, A., 1098.

Margolis, F. G. See Dubovitzki, A. M. Margolis, L. Sce Goldberg, D.

Margosches, K. G. See Klatt, R. Margules, E. Z. See Dobrjanski, A. F.,

and Favorski, A. E. Margulies, P., displacement of fluorescence

and absorption spectra of tribenzyldecaeyelene in relation to the solvent, A., 548.

Margulis, H. See Clarens, J.

Margulis, M. See Pakschver, A.

Marick, L., variation of resistance and structure of cobalt with temperature and a discussion of its photo-electric emission, A., 929.

Marie, J. Sec Debré, R.

Maries, M. B. See King, J. G. Mariette, E. S. See Duncan, G. R.

Mariller, C. G., economical dehydration of alcohol starting from wines or phlegms, (P.), B., 855.

Marine Chemical Co. See Farnsworth, W.H. Marinesco, G., Alexianu-Buttu, G., and Olteanu, I., content of vitamin-C in normal and pathological [human] cerebrospinal fluid, A., 906.

Marinesco, N., deflagration of explosive substances by ultrasonic radiation, A., 166. Law of blackening of photographic plates by ultrasonic rays, A., 572.

Maring, W. D. See Bitting, L. W. Marini, G. B. See Piutti, P.

Marino, S., chloropenic hyperazotæmia, A., 622.

Marion, L. See Spath, E.

Mark, H., kinetics of polymerisation and poly-condensation reactions, A., 1210. and Motz, H., diffraction of fast-moving electrons, A., 144. Formation of unimolecular films on thin foils of metals

and of cellulose, A., 933. and Raff, R., kinetics of thermal polymerisation of styrene, A., 433.

and Saito, G., fractionation of highly polymerised substances by chromatographic adsorption analysis. I., B., 925.

and Wald, M., heavy hydrogen and heavy water, A., 301.

See also Dostal, H. Markarov, G. K. See Murach, N. N., and

Vaninkov, V. A. Marke, D. J. B. See Garner, W. E.

Marker, R. E., sterols. IV. Androsterone derivatives, A., 604. Empirical method for predicting configuration of optically active carbon compounds, A., 960.

Kanum, O., Oakwood, T. S., and Laucius, J. F., sterols. VI. Synthetic preparation of cestrone (theelin). VII. cisand trans-Androstanone-3-carboxylic acid, an æstrus-producing male hormone derivative, and epicholesterol, A., 1256, 1506.

Marker, R. E., Oakwood, T. S., and Crooks, H. M., sterols. V. cpiCholesterol, A., 604.

Whitmore, F. C., and Kamm, O., androsterono and related sterols, A., 330.

Whitmore, F. C., Kamm, O., Oakwood, T. S., and Blatterman, J. M., androsterone and related sterols, A., 473. See also Levene, P. A.

Marketu, M. Seo Schüler, II.

Markevitsch, A. M. See Durdin, J. V.

Markin, B. I., and Müller, R. L., electrical conductivity of glass-forming barium borate, A., 1466.
Müller, R. L., and Weinstein, C. V.,

etch-forms in glasses, A., 1449

Markley, J. W., Clement, T. W., and Peerless, Inc., metal-treating compound [pickle for stainless steel], (P.), B., 153.

Markley, K. S. See Sando, C. E. Markoff, G. N., effect of thyroxine on

tissue oxidation, A., 508. Markorijan, M. B., results of operation of

the Baku cracking units, B., 227. Markov, M., permutation degeneration in

vector models of atoms, A., 7. Markova, G. A. See Rosanov, S. N.

Markova, K. See Leontev, I.

Markovich, S. See Stanley, W. W.

Markovitsch, A. V., electrodialysis of scrum, A., 494.

See also Grigorov, O. N.

Markovitsch, M. B., cracking and refining [oil]; investigations on the plant "Chimgaz," 1926—1931, B., 483. and Dementieva, M. I., sulphuric acid

method for analysing technical un-

saturated gases, B., 532. and Moor, V. G., extracting divinyl [butadiene] from cracked gases. f. Problems of extraction and means for

its realisation, B., 631.

Romanov, R. P., Tschernaeva, D. A., and Isakov, G. A., cracking of Grozni paraffinic fuel oil, and combined cracking and dewaxing by light cracking and simultaneous deep cracking of the light distillates, B., 483.

Markovitsch-Burawoy, I. See Burawoy, A., and Hein, F.

Markowski, S., influence of changes in the medium on development of eggs of Bothriocephalus scorpii (Müller 1776), A.,

Marks, A. M., anisotropic body, (P.), B.,

Marks, B. M., and Dupont Viscoloid Co., aldehyde-hydrogen sulphide reaction product, (P.), B., 89. Urca-condensation resinous compositions, (P.), B., 1110.

Marks, G. W., effect of glutathione and other substances on the inactivation of

catalases, A., 1296.

Markush, E. A., and Pharma Chem. Corp., dye-producing composition [mixtures of diazoimino-compounds and coupling components], (P.), B., 880. Dycing compositions, (P.), B., 923. Polyazodyes, (P.), B., 978.

Markwell, W. A. N., evaluation of henna,

B., 361. Assay of lobelia, B., 762. Determination of volatile oils in plant

material, B., 1017. and Cross, A. E., examination of rubbed spearmint, B., 124.

Markwood, L. N., nicotine peat; a new insoluble nicotine insecticide, B., 756. New water-soluble nicotine insecticide; nicotine lumate, B., 807.

Markworth, E. See Debuch, C. P. Marloth, R. H., colouring citrus [fruit] with acetylene, B., 392. Colorimetric tests for *Citrus* species, B., 563.

Marlow, H. W., effect of injection of residual

ovarian extracts, A., 1564.

and Groetsma, F., effect of injection of residual ovarian extracts, A.,

Marmasse, P. See Lebeau, P.

Marmier, L., and Gryscz, V., purification of bacteriophage by electrophoresis and its therapeutic use, A., 249.

Marnay, A. See Nachmansohn, D., and Wajzer, J.

Maroney, J. W. See Johnston, J. A. Maroney, W., thermal equilibrium of cis-trans-isomerides of dichloroethylene at high temperatures, A., 288.

Marotta, D., and Calo, A., hydrophilic hemp, B., 783.

Di Stefano, F., and Vercillo, A., maturation of flour. I. Behaviour of I. Behaviour of diastases, B., 296.

Marple, K. E. See Gilman, H.

Marquardt, J. C., Trappist-type cheese, B.,

616.

Marques, (Mme.) B. E., fractionation of barium salts containing radium, A., 421. Distribution of radium in crystals of radium-containing barium salts, A., 560. New method of separation of radium by rapid reduction in barium content, A., 676.

Marquet, F. See Roche, A. Marques, B. See Myhren, A. J., and New Jersey Zinc Co.

Marquis, C. See Teckemeyer, J. F.

Marrack, J. R. See Abbasy, M. A. Marras, A., behaviour of blood-sugar in poisoning by potassium atractylate, A., 223. Therapy of poisoning by the active principle (potassium atractylate) of Carlina gummifera, A., 240.

Marrian, G. F. See Cohen, S. L., and

Odell, A. D.

Marriott, G. J., stabilisation of diazo-compounds in solution, B., 779.

Marriott, J. A. See Hunter, L.
Marriott, R. H., tannage in the light of science, B., 657.

Marschak, F., electrolytic preparation of

silver salts, B., 1000.

Marschak, M. J., selection of materials used in millboard factories, B., 1035.

Marschak, Y., paper from waste tanbark oak, B., 186.

Marschalk, C., substitution addition in the

anthraquinone scries, A., 79. New method of condensation, A., 721. Action of isatin on a-naphthyl ethyl ether, A., 736. Linear pentacene, A., 1513.

Konig, F., and Ourousoff, N., introduction of side-chains into anthraquinones, A., 1256.

Marschall, A. See Cândea, C.

Marschalleck, B., decortication of beech wood for chemical-technical purposes,

Marschner, A., removal of iron and manganese from humus-containing waters in closed rapid filters, B., 1238.

Marschner, W., sands for production of lime mortar, B., 194. Slaking properties

of lime, B., 541.
Marsden, C. P., Wheeler, C. M., and Hygrade Sylvania Corp., [carbon] electrodes [for radio-valves], (P.), B.,

Marsden, J., and Maass, O., discontinuity in dielectric constant of liquids and their saturated vapours at the critical temperaturo, A., 139. Polarisation of liquids and their saturated vapours in the critical temperature region, A., 666.

Marsden, R. J. B., and Sutton, L. E., mesomeric effect of the dimethylaminogroup in dimethylaniline, and nature of its interaction with halogen groups, A., 836. Evidence of wave-mechanical resonance in the carboxylic ester and lactone group, from electric dipole moments, A., 1447.

Marsene Corporation of America, production of reaction product of butadiene derivatives with hydrogen chloride, (P.), B., 609*. Producing a reaction product of butadiene bodies with hydrogen chloride, (P.), B., 752.

Marsh, F., ascorbic acid as precursor of

serum complement, A., 765.

Marsh, F. L. See Best, J. C. Marsh, G., kinetics of an intracellular system for respiration and bioelectric potential at flux equilibrium, A., 394.

Marsh, G. L., and Joslyn, M. A., precipitation rate of cream of tartar from wine; effect of temperature, B., 119.

See also Arighi, A. L. Marsh, H., and Tunnicliff, E. A., foot rot in sheep, B., 211.

Marsh, H. F. See Clarke, G. E.

Marsh, H. M., water-softening apparatus,

(P.), B., 79.
Marsh, J. T. See Tootal Broadhurst Lee Co.

 $\begin{array}{ll} \textbf{Marsh,} \ M. \ E. & \text{See Strain,} \ W. \ H. \\ \textbf{Marsh,} \ R. \ W. & \text{See Kearns,} \ H. \ G. \ H. \end{array}$

Marsh, T. D. See Bunting, B.

Marshall, A., gases of war, B., 300.

Marshall, A. E. See Saklatwalla, B. D.

Marshall, C. E., importance of lattice structure of clays for study of soils, B., 70. Alteration of coal seams by intrusion of some of the igneous dykes in the Northumberland and Durham coalfield, B., 674. Chemical constitution as related to the physical properties of clays, B.,

Marshall, E. G., setting and drying of freshly pasted lead storage-battery plates, B., 554.

Marshall, F. H. A., sexual periodicity and the causes which determine it, A., 1031. Marshall, H. L. See Jacob, K. D., and Reynolds, D. S.

Marshall, James, calcium arsenate for codling-moth control in arid regions, B., 1118.

Eide, $P.\ M.$, and Priest, $A.\ E.$, increasing and maintaining lead arsenate deposits for codling-moth control, B., 387.

See also Groves, K., and Webster, R. L. Marshall, Joseph. See Boots Pure Drug Co. Marshall, J. R. See Bennett, H. T.

Marshall, T. M. B., determination of soap by titration in petroleum solvents, B.,

Marshall, W. E. See Hoover, G. R. Marson, R., determination of direct dves by precipitation, B., 361.

Marston, H., electrodeposition of cadmium in electrical engineering, B., 152.

Marston, H. R., physiological aspects of the phosphorus metabolism of sheep, B., 218. Marston, J. R. See Kuzell, C. R. Marston, L. C., jun. See Worthley, H. N.

Martello, V. See Monti, (Signa.) L. Martens, L. See Bastin, R.

Martens, P. See Meurice, R.

Martens, R. I. See Johnson, W. C. Martensson, J., simultaneous poisoning of frog's muscle with veratrino and iodoacctic acid, A., 517.

Marti, F. B. See Collazo, J. A.

Martianov, N. N. Sec Vassiliev, A. A.

Martin, A. E. See Gull, H. C. Martin, A. J. P. See Wooster, W. A.

Martin, D. See Carne, W. M. Martin, D. C., spectrum of Se II, A., 127. Martin, E., use of forage crops for growing

and fattening swine, B., 43. Martin, E. C., determination of carbon dioxide in beer, B., 295.

Martin, E. J., and Sinclair Refining Co., dewaxing of hydrocarbon oils, (P.), B., 9. Martin, E. L., modification of the Clemmen-

sen method of reduction, A., 1249. and Fieser, L. F., a-tetralone (a-ketotetrahydronaphthalene), A., 471.

See also Fieser, L. F., and Overbaugh,

Martin, E. V., and Clements, F. E., effect of artificial wind on growth and transpiration in Helianthus annuus, A., 394.

Martin, George. See Rubber Producers Research Assoc.

Martin, Georges, determination of dyes, B., 12.

Martin, Gerhard, high-frequency loss of polar solutions, A., 550. High-frequency loss and molecular properties of polar solutions, A., 1336.

Martin, G. J., qualitative test for linolenic acid, its value and limitations, A., 454.

See also Heise, F. H.

Martin, G. T. O., and Partington, J. R., dielectric polarisation. XVI. Dipole moments of some acid halides and of phosphorus oxychloride. XVII. Dipele moments of some aromatic acid halides. XVIII. Dipole moments of the chlorides of some dicarboxylic acids. XIX. Dipole moments of some aromatic sulphonyl

chlorides, A., 409, 1183. Martin, H. See Noller, C. R.

Martin, Hubert, chemistry of fungicides used on farm crops, B., 613.
See also Evans, A. C., and Kearns,

H. G. H.Martin, H. C. See Hazlehurst, T. H., jun.

Martin, Harry C., and Carborundum Co., abrasive paper, (P.), B., 1042. Martin, J. See Kesztyüs, L.

Martin, Josef, separation of dust from

flowing gases, (P.), B., 578.

Martin, J. J. See Bell Telephone Labs.

Martin, J. P., [sugar] cane growth in nutrient solutions, B., 293.

Martin, J. T. Sec Tattersfield, F.

Martin, L., new interpretation of results of the conventional titration of gastric juice, A., 1288.

Martin, L. E. See Wirth, E. H. Martin, L. F., Pizzolato, P., and MeWaters, L. S., kinetics of Friedel-Crafts reaction and activity of mixed catalysts in reaction of benzoyl chloride with toluene, A., 322

Martin, M. J., filtration and clarification of water, (P.), B., 128.

Martin, O. V., and Texaco Salt Products Co., sodium sulphate, (P.), B., 101. Magnesium sulphate, (P.), B., 233.

Martin, P. See Grysez, V. Martin, R. See Pien, J

Martin, R. C., analysis of lacquer [solvents], B., 205. Analysis of lacquer thinners, oils, and resins, B., 380.

Martin, R. H., and Norton Co., rubberbonded abrasive article [wheel], (P.), B., 1154.

Martin, S. M., jun., Gruse, W. A., and Gulf Refining Co., removal of gum and gum-forming constituents from cracked petroleum distillates, (P.), B., 486.

Martin, W. See Böger, A.

Martin, W. (Erlangen). See Lange, E. Martin, W. E., distribution of certain sugars in Bose pears, B., 1066.

Martin, W. C., and Smith Corp., A. O., enamelling [of ferrous metals], (P.), B., 371.

Martin, W. H. See Caulfield, W. J.

Martin, W. M., gas-absorption vessels, A., 1355.

Martin, W. P., grinding mill, (P.), B., 352. Martindale, F. See Adams, A. E. Martinet, J. See Ramnoux, (Mlle.) C. Martinez, C. See Buzzo, A.

Martinez-Cros, J., iodates. II. Cobalt and zinc, A., 948.

and Le Boucher, L., iodates. I. Copper and nickel, A., 948.

Martini, A., and Berisso, B., microchemical detection of arsenic in forensic investigations, A., 914.

Martini, E., vagal central action of phenylglyoxal, A., 373. Muscle contractions without production of lactic acid, A., 516. Effect of light on oxidation-reduction potential of ascorbic acid, A., 1032. Physiological action of methylglyoxal, A., 1550.

Bonsignore, A., and Pinotti, F., renal innervation and reducing substances

in urine, A., 362.

and Copello, F., ratio of dehydroascorbic to ascorbic acid in tissues after administration of thyroxine, A., 1304.

and Franchi, G., action of phenylglyoxal on vasomotor innervation of the kidney, A., 373.

and Roncallo, E., right vagus nerve and hypoglycemic action of ultra-violet irradiation, A., 1291.

Martini, L., chromyl chloride test for chloride, A., 41. Oxidative determination of hypophosphite, A., 42. Separation of bromides from chlorides by means of iodic acid, A., 693.

Martini-Hüncke & Salzkotten Maschinen & Apparatebau-Akt.-Ges., mixing measuring devices, (P.), B., 80.

Martino, G., consumption of the antincuritic factor in oryzanin feeding of different birds, A., 253.

Martinov, M. F., Giller, A. O., and Kortschemkin, F. I., wood cellulose as a substitute for rag pulp for manufacture of millboard, B., 1034.

Martins, U. B., oxidation of neutral salicylates in alkaline medium, and particularly sodium salicylate in presence of sodium hydrogen carbonate, A., 636.

Martintzeva, S. S., and Smirnova, Z. L., determination of hypochlorite and chlorate in the cathode solution of chlorine factorics, B., 541.

Martius, occupational risks in the chemical industry and their prevention, B., 718.

Martius, C., and Knoop, F., oxidationreduction potential of a-aminoketobutyric ester and of reductone, A., 888.

See also Knoop, F.

Martus, M.L., and Becker, E.H., [primary] electric cell, (P.), B., 747. Primary cell, (P.), B., 1051.

Marty, rubber analysis, B., 753.

Martyn, D. F., and Pnlly, O. O., temperatures and constituents of the upper atmosphere, A., 816.

Maruyama, R. See Kono, M. Marvel, C. S. See Brown, James II., Farley, E. D., Ford, J. H., Pinkney, P. S., Ryden, L. L., and Sparks, W. J.

Marvin, G. C., and Schumb, W. C., determination of small quantities of selenium in sulphur, B., 101. Determination of selenium in 18:8 stainless steels, B., 548.

Marx, A. See Kautsky, H. Marx, F. See Haurowitz, F.

Marx, H., significance of the pituitary in kidney disease, A., 387.

See also Arnold, O.

Marx, K., Wesche, H., and Winthrop Chem. Co., diphenyl ether, (P.), B., 875. Mary, J. D., control of fine grinding and its

theory, B., 768. Masa, C. See García-Blanco, J.

Masaeva, M., chlorophobia in plants, B.,

Masai, Y., Mabuchi, H., and Fukiwake, T., specific-dynamic action of amino-acids. I. Effect of glucose on the specificdynamic action of glycine. II. Effect of configuration on specific-dynamic action. III. Dependence of specific-dynamic action on amino-group content, A., 367.

Masaki, K., normal frequencies of vibration of benzene compounds in ultra-violet

absorption, A., 921.

Masaki, O., and Kobayakawa, K., structure of the D and F terms in potassium, A., 916.

Kobayakawa, K., and Morita, T., near infra-red spectrum of mercury. I., A., 1310.

Morimoto, Y., and Sakuma, K., influence of temperature on the absorption of excited cadmium vapour containing neon, A., 916.

Masalov, N. I. See Smirnov, A. V.

Masalski, V. L., and Tscherni, A. T., complexes of sodium nitroprusside, A., 947.

Masayama, T. See Kotake, Y. Mascherpa, P., electric cataphoresis of brucine and strychnine in solutions of ovalbumin or in blood-scrum from different animals, A., 360. Relations between some alkaloids and protein substances, A., 360. Affinity of pulmonary proteins and their degradation products for the lung, A., 360. Comparative action of sodium arsenate, sodium arsenite, and arsenic-protein preparations on respiration and glycolysis of Saccharomyces cerevisia, A., 1421.

and Callegari, L., influence of p_H on formation of salt-protein compounds between arsenic, antimony, bismuth, and albumin, A., 619. Method of introducing elementary arsenic, antimony, and bismuth into proteins, A., 619.

Maschin, A. See Jagitsch, R.

Maschinenfabrik Buckau R. Wolf A .- G .. apparatus for clarifying waste water by the foam-flotation method, (P.), B., 862. Clarification of water such as industrial and town waste water, (P.), B., 958.

Maschinenfabr. Cham Akt.-Ges., and Egg, K., skimming devices for centrifugal machines, (P.), B., 1024.

Maschinenfabr. Esslingen, [arrangement of cylinders for compressing carbon dioxide snow into blocks, (P.), B., 1152.

Maschinenfabr. Imperial G.m.b.H. Hoening, H.

Maschmann, E., and Helmert, E., intracellular proteinases. XVIII. Effect of co-enzyme and cozymase on proteinases reversibly inactivated by heavy metals, A., 1557.

Maschovetz, V. P., variations in m.p., and denaturation of cryolite when fused in contact with air, A., 945. Molecular state of oxides dissolved in cryolite, A., 945.

and Lundina, Z. F., density of mixtures of some molten electrolytes, A., 1060.

Mascré, M., effect of aeraldehyde on structure of the plant cell, A., 1165.

and Paris, R. R., comparative action of acraldehyde vapour on the cellular structure and sugar content of some vegetable tissues, A., 1305.

Masek, J., influence of bromocholine on

gastric secretion, A., 1020. Composition of [milk-]centrifuge sludge, B., 567.

Mashbitz, L. M. See Sklianskaja, R. M. Mashino, M., and Shikazono, N., separation of amino-acids. I. and II. Adsorption of diamino-acids on Japanese acid clay. III. Adsorption of aminoacids by Japanese clay from protein hydrolysate. IV. Dissolving out of amino-acids adsorbed by Japanese clay. V. Recovery of Japanese acid clay [after use for adsorption of] aminoacids, A., 561, 872, 873.

Masin, J. S., and Swann Res., Inc., aluminium oxide abrasive, (P.), B., 643.

Masing, G., problems in technical electrochemistry, B., 699.

and Ritzau, G., free-cutting aluminium, B., 1159.

Masino, C., [constituents of] Polygonum hydropiper, A., 1035. Presence of quinotoxine in cinchona bark, B., 812. Destruction by perchloric acid applied to the determination of bismuth in organic salts and pharmaceutical preparations, B., 1017. [Oil from] Mentha aquatica, L., B., 1017. Maskell, E. J. See Mason, T. G.

Maskill, W., control of glass furnaces, B., 275.

Maskin, M. See Necheles, H.

Masling, T., chemical determination of bread aroma, B., 809.

Maslov, J. K. See Mamulov, S. A., and Stender, V. V.

Maslov, N. M. Sec Schtschodro, N. K. Maslov, V., and Burovaja, T., migration of organic accelerators in rubber mixtures of natural rubber during vulcanis-

ation in multi-layer products, B., 655.

Mason, A. E., and Davis, Inc., N. K., mixing-drum gate, (P.), B., 48.

Mason, A. J., separator [for granular materials], (P.), B., 129. Recovery of phosphates from minerals, (P.), B., 145. Phosphorus, (P.), B., 453. Operation of a reducing furnace, (P.), B., 601.

Mason, C. M., and Ernst, G. L., activity and osmotic coefficients of aqueous solutions of lanthanum chloride at 25°,

A., 1463.

and Gardner, H. M., isopiestic method for determination of mol. wts., A., 957. Gray, R. D., and Ernst, G. L., magnetic rotation of lanthanum and neodymium

chlorides in aqueous solution, A., 1322.

Mason, C. T. See Hatcher, W. H. Mason, H. L., Myers, C. S., and Kendall, E. C., crystalline substances from the

adrenal gland, A., 1117.

Mason, J. B. M., briquetting of small coal, B., 675.

Mason, L. R., and Union Oil Co. of California, bituminous composition for uso in sea walls, (P.), B., 63.

Mason, L. S., and Washburn, E. R., specific heats and related properties of the binary system methyl alcohol-toluene, A., 789.

Mason, M. F., halide distribution in body fluids in chronic bromide intoxication, A., 517.

and Resnik, H., toxicity and rate of disappearance of intracisternally injected calcium salts in the dog, A., 512. Mason, R. B. See Aluminum Co. of

Mason, R. C., arcs in rare gases, A., 398.

Mason, S. R. See Western Electric Co. Mason, T. G., Maskell, E. J., and Phillis, E., transport in the cotton plant. III. Independence of solute movement in the phloem, A., 531.

and Phillis, E., transport in the cotton plant. V. Oxygen supply and the activation of diffusion, A., 1162. Concentration of solutes in [plant] sap and tissue and the determination of bound water, A., 1165.

America.

Sce also Phillis, E. Mason, T. N., and Wheeler, R. V., inflammation of coal dusts. I. Effect of fineness of dust. II. Value of the presence of carbon dioxide and combined water in the dusts, B., 913.

Mason, W. C., and Hutcheson, W. W., drying of potatoes and similar vegeta-

bles, also applicable to cereals such as wheat and barley, (P.), B., 43. Evaporation of whey and its production in powdered form, (P.), B., 762. See also Hutcheson, W. W. Masonite Corporation. See Streeter, E. H.

Massart, A. Sec Libbrecht, W.

Massart, J. See Stainier, C.

Massart, L., methods and apparatus in use at the Bureau des Etalons Physico-Chimiques. IX. Variation of the density as a function of temperature for a series of ten hydrocarbons, A., 557.

Massatsch, C., and Schneider, E., distribution of tin in the solid and liquid portions of canned vegetables, B., 1124. Massee, A. M. See Greenslade, R. M.

Massey, H. S. W., double excitation of helium by electron impact, A., 4. and Buckingham, R. A., determination of van der Waals forces, A., 1052.

and Burhop, E. H. S., relativistic theory of the Auger effect, A., 656. Intensity of X-ray spectrum lines of heavy elements, A., 1169. Probability of K-shell ionisation of silver by cathode rays, A., 1438.

and Mohr, C. B. O., interaction of light nuclei. II. Binding energies of the nuclei H_1^3 and $He_2^{\bar{3}}$, A., 266.

and Smith, R. A., negative atomic ions, A., 1171,

See also Fraser, R. G. J.

Massey, I. H., and Williams, J. J., removal of coating materials, e.g., paint, from metal and similar fireproof surfaces, (P.), B., 510.

Massey, L. M., and Jenkins, A. E., scab of violet caused by Spaceloma, B., 564.

Massière, R., and Beaumont, G., physiology of treatment of barbiturate poisoning, A., 376.

Masson, I., Race, E., and Pounder, F. E., iodoxy-group and its relations, A., 61.

Massot, A., and Lestra, H., determination of chlorides in milk, B., 216.

Mast, L. R. See Mast, S. O.

Mast, S. O., apparatus for maintenance of a graded series of constant temperatures, A., 1083.

and Pace, D. M., relation between sulphur in various forms and rate of growth of the colourless flagellate Chilomonas paramecium, A., 247. Why have some investigators been unable to grow Chilomonas paramecium in inorganic or simple organic solutions?

Pace, D. M., and Mast, L. R., effect of sulphur on rate of respiration and respiratory quotient in Chilomonas

paramecium, A., 1433. Mast, W. C., and Chem. Construction Corp., purification of the gases from the decomposition of acid sludge, (P.), B.,

Masterman, C. A., Dunning, E. W. B., and Densham, A. B., air vitiation and gas appliances, B., 6.

Masuda, E., and Nishida, K., iodine of seaweeds. III., A., 123.

Masuda, G. See Takahashi, E.

Masuda, S., sulphates in lymph. I. and II. Sulphates in peripheral lymph after intravenous injection of aqueous phenol

solution, A., 98.

Masumjan, V. See Likhuschin, K. P.

Masumoto, H., and Shirakawa, longitudinal magneto-resistance effect at various temperatures in nickelcopper alloys, A., 1332.

See also Honda, K. Matano, C., and Nakamoto, M., strength and X-ray diagrams of regenerated silk

fibres, B., 1034. Matano, S. See Yoshida, U.

Matanzev, A. See Essin, O. Mate, B. See Dow Chem. Co.

Mateeff, D., and Schneider, M., peripheral circulatory activity of histamine, A., 633.

Matejka, K. See Kurtenacker, A. Mater, L. F. V., pickling of metal [rustless iron or steel], (P.), B., 280.

Mather, E. See Monsanto Chemicals. Mathers, F. C., electroplating of antimony, B., 997.

See also Blue, R. D.

Mathes, M. E. See Chaikoff, I. L.

Mathes, W. See Prahl, W. Matheson, G. L. See Standard Oil Development Co.

Matheson, H. See Bekkedahl, N. Matheson, H. W. See She Shawinigan Chemicals, Ltd.

Matheson, K. J. See Burkey, L. A. Mathet, E. See Vázquez, A.

Mathews, J. A., and Lightbody, H. D., toxicity of Derris and cubé, B., 1013. See also Jackson, R. F., and Lightbody, H. D.

Mathewson, C. H. See Seybold, A. U. Mathias, E., industry of very low temperatures and of the rare gases, B., 192. and Crommelin, C. A., carbon monoxide [rectilinear diameter] and helium, A., 418.

Mathieson, A. S. See Cunningham, G. L. Mathieson Alkali Works, bleaching of fatty acids, oils, and fats, (P.), B., 607. and MacMullin, R. B., alkali carbamates.

(P.), B., 404. See also Berl, E., Cunningham, G. L., Curtis, E. C., Hill, N. C., Koch, W. H., MacMullin, R. B., and Savell, W. L. Mathieu, F., biologically active calcium of the aqueous humour in hyperparathyroidism and acute and latent

tetany, A., 1565. and Bacq, Z. M., physiology of the autonomous nervous system. Action of adrenaline on blood-calcium of the dog with parathyroid insufficiency, A., 385.

Mathieu, G., control of ripeness of table grapes in the Avignon district, B., 1066. Mathieu, J. P., absorption, optical activity, and configuration of metal complexes, A., 135. Werner complexes; optical activity and configuration of ions of the type MA₃; absorption of hexacoordinated cobalt and chromium derivatives in aqueous solution; optical activity and configuration of ions containing the groups [Me en2] or [Me ox2], A., 410, 544, 551.

Mathieu, M., and Petitpas, (Mlle.) T., X-ray study of absorption of cyclopentanone by cellulose trinitrate, A., 414.

Mathing, W. Sco Stock, A.

Mathur, L. S., and Sen-Gupta, P. K., nitrogen atom and the molecule, A., 537. See also Saha, M. N. Mathur, P. B. See Singh, B. N.

Mathur, R. N., and Nevgi, M. B., crystal structure and diamagnetic susceptibility, A., 928.

See also Bhatnagar, S. S.

Mathy, E. L., sprayed metal coatings: technique and properties, B., 841.

Matignon, C., and Seon, M., production of hydrogen from hydrocarbons, B., 144. Matla, IV. P. M., dust explosions, A., 570.

Starch nitrates ["nitrostarch"], B., 342. Influence of water-pipes on the iodine content of water, B., 1182.

Matlack, M. B. See Sando, C. E. Matossi, F., and Krüger, Hans, infra-red

reflexion spectra of silicates. II., A., 662. Matschak, H., physiology and pharmacology of sterols. III. Influence of sterols on the cutaneous absorption of drugs from unguents, A., 1551.

Matschak, M., construction and operation of a thermostat with moisture regulation for determination of the hygroscopic point of brown coal, B., 1025.

Matschkarin, V., container for analysing gases by combustion, A., 182.

Matschulan, G., and Amsler, C., prolongation of the local anæsthetie action of morphine-cocaine by calcium, A., 1294.

Matsen, H. See Sommer, H. H.

Matsubara, F. Sec Kita, G.

Matsuda, H., influence of hormones on spread of melanophores caused by posterior pituitary lobe extract, A., 251.

Matsuda, I. See Kato, B. Matsuda, R., electrolytic formation of persulphate. I., A., 436. Electrolytic form-

ation of sodium perborate. I., A., 1213. Matsuda, Shin-ichi, bactericidal action of ethylapoquinine ethylhydroandcupreine on type strains of pneumo-

cocci. I. In vitro, A., 1156. See also Ishizaka, N.

Matsuda, Sumio. See Deno, S. Matsui, J. See Nishida, K. Matsui, K. See Nodzu, R.

Matsui, M., heat of formation of sodium ferrite, A., 565. Sulphuric acid industry in Japan, B., 692.

Matsukawa, Taizo, sanguisorbigenin, A., 81. Saponin of the seeds of Esculus turbinata, Blume, I., A., 732.

Matsukawa, Tatsuo, viscosity of acid and basic open-hearth and cupola-furnace slags in the molten state, B., 546. See also Kuwada, S.

Matsumoto, K. See Uchida, S.

Matsumoto, N., crystals of lead chromate produced in various inorganic and organic substances, A., 926. Reversibility of alkali-celluloses and native cellulose, B., 979. and Hori, G., X-ray diffraction pattern

of soda-cellulose, B., 1034.

Matsumoto, S., uric acid-excreting function of the liver in renal disturbances. I .-III., A., 1144.

Matsumoto, T. See Saegusa, H.

Matsumura, S., and Oka, T., influence of oral administration and injection of nutrients on enzymo actions of bodyfluid of the silkworm, A., 244.

Matsunaga, V., change of lattice of fibroin when completely dried in a vacuum,

A., 1055.

Matsunawa, S., Nozawa, F., and Suzuki, M., heat-treatment of steels and iron alloys,

(P.), B., 153.

Matsuno, K., and Han, K., Raman effect of organic substances. V. Raman effect of homocyclic compounds. VI. Raman effect of sesquichamene and other terpenes, A., 923, 1445.

Matsuo, I., and Inouye, K., pathological physiology of liver. III. Impaired function in relation to nitrogen-containing

substances, A., 365.

Matsuo, M. See Kamita, K. Matsuoka, K. See Nagai, S.

Matsuoka, N., and Daita, K., effects of hydrochloric acid and sodium hydrogen carbonate administrations on distribution of blood-chlorine, A., 357.

Matsuoka, Y., "bound" sugar of the blood. I. Influence of protein-fat diets and relation to free blood-sugar. II. Influence of fasting and relation to free

blood-sugar, A., 1400.

Matsushita, Y. See Sakurada, I.

Matsuura, A. See Inoue, R., and Itano, A.

Matsuura, T. Seo Mizuta, N.

Matsuyama, I., diuretic action of the

digitalis group, A., 1145. Matsuyama, K., ternary diagram aluminium-copper-silicon system, A.,

Matsuzaki, K., characteristics of the testes hormone, A., 1157.

Mattauch, J., double-focussing spectrograph and the masses of 15N and ¹⁸0, A., 1440.

Mattauch, M. See Bernhauer, K.

Mattern, R. P., and Minneapolis-Honeywell Regulator Co., cleaning of metal [electrodes of mercury switches], (P.), B., 156. Matthaus, G. See Pummerer, R.

Matthes, K., oxygen saturation of human arterial blood, A., 91. Gaseous exchange in the human lung. I. Oxygen content and tension in arterial and venous blood. II. Equilibrium between oxygen tensions in alveoli and blood, A., 1134.

Böhme, M., and Tietze, K., gaseous exchange in the human lung. IV. Gaseous exchange in the lungs during

bodily work, A., 1134.

and Hauss, W., gaseous exchange in the human lung. III. Circulation and respiration during bodily work, A., 1134. Matthew, J. A. See Linen Industry Res. Assoc., and Spencer-Smith, J. L.

Matthew, T. U., effect of continuous corrosion and abrasion on fatigue of steel, B., 645.

Matthews, E. D. See Scott, W. B.

Matthews, F. J., lubricating oils and greases, B., 403.

Matthews, H. D., and Chace Valve Co., W. M., bimetallic element, (P.), B., 376. Matthews, M. A. See Imperial Chem. Industries.

Matthews, Seo Imperial Chem. Industries.

Matthijsen, H. L., critical oil content of [raw] linseed oil and linseed oil-stand oil paints, B., 67. Adhesion of a film of the same paint to different surfaces, B., 68.

Mattick, A. T. R., Hiscox, E. R., and Davis, J. G., bacteriology and mycology applied to dairying, B., 391.

and Nichols, A. A., effect of reaction of milk on destruction of micro-organisms by heat, B., 120.

Mattiello, J. See Work, L. T.

Mattill, H. A. See Olcott, H. S., and Seegers, W. H.

Mattimore, H. S., and Rahn, G. A., concrete disintegration, B., 643.

Matting, A. See Diepschlag, E. Mattis, P. A., microscopy of powdered, desiccated endocrine glands, A., 1137.

Mattison, E. L. See Daudt, H. W. Mattox, W. J. See Universal Oil Products Co.

Mattson, S., and Gustafsson, F., chemical characteristics of soil profiles. Mutual interaction of podsolie materials, B., 34.

Matui, E., oil-soluble synthetic resins, B., 1006.

Matula, V. H., method of dissolving pitchblende for preparation of radium standards, A., 689.

Matumoto, J., and Kobayasi, E., preparation of cold enamel [light-sensitive

coating], B., 1055.

Matumoto, K. See Nishizawa, K.

Maturo, \hat{D} ., displacement of equilibrium and the laws of moderation [i.e., of Le Chatelier and van 't Hoff], A., 29. Reversible thermo-elastic systems; generalised coefficients, A., 29. Osmotic equilibrium and real solutions, A., 29. The concentration cell and Nernst's formula, A., 31. Thermodynamics of the electric cell in heterogeneous systems,

Matusevich, J., calcium salts and blood

coagulation, A., 94.

Matusis, I. I., resistance of capillaries in experimental C-avitaminosis of animals and men; use of the phenomenon of the fall in resistance of capillaries for rapid determination of vitamin-C activity of foods, A., 1032. Matuszak, M. P., and Fisher Scientific Co.,

gas-absorption pipette, (P.), B., 257. Matuszewski, T., growth and metabolism

of cells of Streptococcus lactus in sterilised milk (logarithmic phase), A., 1155.

Matuzaki, S., oligolytic concentrations of saline with respect to the erythrocytes of the blood of various animal species, A., 1135.

Matveev, A., and Vergunas, F., scattering of high-speed electrons, A., 540. Matveev, G. P. See Lanin, N. P.

Matveev, L. See Kulberg, L. Matveev, V. J. See Utsehastkina, S. V. Matveeva, T. V. See Bobko, E. V.

Matzdorff, formation of adipocere, A., 748. Matzko, S. N., antiscorbutic properties of sulphitised dried cabbage, A., 120. Antiscorbutic turnip preparation, A., 120. Sources of vitamin[-C]. XIII. Vitamin-C in dried onions. XIV. Antiscorbutio properties of Brassica napus. XV. Antiscorbutic properties of sulphited, dried white cabbage, B., 121. Increasing the vitamin-A content of margarine by adding carotene, B., 616. Sources of vitamins. XX. Vitamin-A value of pine needles. XX. Enrichment of margarine with vitamins. XXI. Antiscorbutic preparations from winter rape. XXII. -A activity of preparations from pine needles, B., 811, 1123.

Matzner, E., disruption of atoms by

neutrons, A., 1045.

Matzurevitsch, I., synthesis of sulphur derivatives of 1:2:4-triazole, A., 1127. Matzurevitsch, I. K., oil from Asclepias

cornuti seeds, B., 648. Caoutchouc of Asclepias cornuti (Syriaca, L.), B., 655. Maubec, G., treatment of fibres and fibrous materials, (P.), B., 982.

Maucher, A., origin of the Passau [Bavaria]

graphite deposits, A., 1227.

Mauersberger, E. A., sulpho-acids and their salts having capillary-active properties, (P.), B., 89. Wotting, washing, emulsifying, softening, and like agents, (P.), B., 871.

Mauge, L., economic production of phos-

phoric acid, B., 541.

Maugé, R., degree of sensitivity and photographic practice, B., 1180.

Mauguin, C., theory of the reflexion of X-rays by crystals, A., 782.

Mauler, F. K., regeneration of used mineral oils, B., 178.

Maume, L. See Lagatu, H. Mauras, H., thermal study of mixtures of air and steam, B., 725.

Maurel, A. See André, F.

Maurer, E., and Bischof, W., distribution of sulphur between metal and slag in the basic and acid processes of steel manufacture, B., 741.

and Heine, H., tensile properties and corrosion behaviour of special structural steels, B., 374.

K., derivatives of dihydro-Maurer, vanillin; catalytic hydrogenation of nitrostyrenes, A., 332.

and Böhme, R., glucosone. I. Halogenoses and glucosidie derivatives. II. Catalytic hydrogenation of osones, A., 968.

and Schiedt, B., advantageous preparation of isoglucosamine; catalytic hydrogenation of osazones, A., 193. Behaviour of d-araboascorbic acid and vitamin-C towards ferrous salts, A., 1032.

Maurer, W., light excitation in helium by collision with potassium ions, A., 1167.

Sec also Henie, O.

Maurer, Société Anononyme, A., rendering films of cellulose substances impermeable [to moisture, acids, and alkaline solutions], B., 96.

Mauritz, B., aphrosiderite from granite of

the Tatra Mts., A., 307.

Mauss, H., and Mietzsch, F., [acridine compounds and their antimalarial action], A., 613. See also I. G. Farbenind.

Mauss, W., grinding such materials as ore,

(P.), B., 3.

Mauthner, F., synthesis of a pyrogallolaldehyde [methyl ether], A., 1109.

Maver, M. E., Johnson, J. M., and Voegtlin, C., cancer. II. Influence of [H'] on the reversal of proteolysis in oxygen-ated extracts of normal and neoplastic tissues, A., 882.

See also Voegtlin, C. Mavin, C. R. See Imperial Chem. Industries.

Mayrodin, A. See Solacolu, T. Mavrodineann, R. See Maxim, N.

Maw, W. A., cereal grains and their use in poultry nutrition. II. Influence on live-weight gains and distribution of fat in fattening stock, B., 1016. Whitehead, W. E., and Bemont, L. H.,

northern fowl mite and its control,

В., 1013.

Maw, William A. See Smokeless Combustion Co.

Mawson, C. A., hexose phosphate metabolism of tumour extracts, A., 1411.

Mawson, E. H., and Welch, A. De M., possible lipotropic action of alkylammonium compounds, A., 633.

Maxfield, \bar{F} . A., and Ruark, A. E., X-ray levels of radioactive elements with applications to β - and γ -ray spectra, \hat{A} ., 131.

Maxim, M. S., and Mcrrimac Chem. Co., sulphuric anhydride, (P.), B., 146.

Maxim, N., and Aldea, G., action of mixed organo-magnesium compounds on aphenyl-β-2-furylacrylonitrile. II., A., 1117.

and Georgescu, (Mlle.) E., action of mixed organo-magnesium compounds on esters; furylidenemalonic, furylidenecyanoacetic, and furylideneacetoacetic esters, A., 996.

and Mavrodineanu, R., Bouveault's method of preparing aldehydes from mixed organo-magnesium compounds and N-disubstituted formamides, A., 972.

and Stancovici, N., action of mixed organo-magnesium compounds on the esters and N-disubstituted amides of a-phenyl-\$\beta\$-2-furylacrylic acid, A., 1117.

Maximenko, B. N. See Sheleznov, A. I. Maximenko, M. S., reactivity of carbon compounds in electrothermic processes, B., 1000.

Maximov, A., electrofiltration of soil, B., 34. Maximov, A. (Moscow). See Komovski, G. Maximov, O. B., bromides of highly unsaturated acids, B., 750.

See also Belopolski, M. P.

Maxted, E. B., and Moon, C. H., temperature coefficient of solubility of hydrogen in organic solvents, A., 790. Energetics of catalysis. VI. Kinetics of hydrogenation processes in liquid systems, A., 806. Kinetics and heat of adsorption of ethylene by platinum, A., 1211. Kinetics of adsorption of hydrogen and of deuterium by platinum, A., 1469.

Maxwell, \hat{C} . E. See Suter, C. M. Maxwell, H. L., use of cast iron in the [American] chemical industry, B., 886. Effect of gases on ferrous metals at high temperatures and high pressures, B.,

Maxwell, L. C., and Bischoff, F., augmentation of the physiological response to insulin, A., 250. Chemistry of the pituitary gonadotropie hormone, A., 251.

Maxwell, L. R., Hendricks, S. B., and Mosley, V. M., electron diffraction by gases, A., 17. Nuclear separation of the S₂ molecule by electron diffraction, A., 1052. Electron diffraction by gas molecules. I. Structure of phosphorus. II. Valency angle of oxygen, A., 1439. and Mosley, V. M., electron diffraction by transmission through thin silica

glass films, A., 1327.

See also Collins, G. N.

Maxwell, R. W., and Du Pont Rayon Co., treatment of cellulosic solutions, (P.), B., 785.

Maxwell, W. R., and Partington, J. R., dissociation constants of polybasic acids. II., A., 797.

Maxwell, Ltd., J. & W. See Wilson, A.

May, A. See Goeppert-Mayer, M. May, A. N., and Vaidyanathan, R., energy levels of some light nuclei, A., 1173.

May, E. J., tensile testing [of vulcanised rubber] with the Schopper eccentric ring, B., 1057.

May, F., and Graf, L., X-ray structure of animal and plant polysaccharides. I.,

and Schulz, A. S., reserve polysaccharides of plants and their significance in the animal economy. I. d-Galactod-mannan of lucerne (Medicago, L.), A., 1036.

May, O. B., derivatives of acenaphthene,

(P.), B., 444.

May, O. E., Herrick, H. T., Moyer, A. J., Wells, P. A., and Wallace, Henry A., carrying out oxidative fermentations by moulds or fungi, (P.), B., 614. See also Ward, G. E., and Wells, P. A.

May, R., action of hexachloroethane on mosquito larvæ, B., 573.

May, W., antagonism between iodine and fluorine in the organism, A., 1020.

May & Baker, Ltd., and Stickings, R. W. E., [water-]soluble salt of 3:6-diamino-10methylacridinium, (P.), B., 220.

Mayeda, S., constituents of Evodia danielli,

Hemsl., A., 910.

Mayer, D. T., rats' milk and stomach contents of suckling rats, A., 509.

Mayer, E., mashing apparatus, (P.), B., 624.

Mayer, Fr. See Nottbohm, F. E.

Mayer, Fritz, vat-dyeing of wool, B., 1089. Mayer, F. X., Vienna spring water and [offect of] lead piping, B., 78.

Mayer, G. See Benedict, J.

Mayer, Herbert (Cernauti), monatomic films of alkali metals on platinum, A., 129. Cuprous oxide "sperrschicht" photoelectric cell as precision sunshine recorder, A., 181.

Mayer, Herbert (New South Wales), food for stock and plant life, (P.), B., 714. Mayer, H. T., luminous paints, B., 702. Mayer, J. E. See Ackermann, P. G.

Mayer, K. See Samee, M., and Waldschmidt-Leitz, E.

Mayer, Konrad, chemistry of hops, B., 901. Mayer, (Miss) M. G. See Herzfeld, K. F. Mayer, Nélicia. See Wurmser, R.

Mayer, Nikolaus, power and storage properties and storage losses of petrol, B., 308. Regeneration of old oil, B., 1076.

Mayer, R. See Goissedet, P.
Mayer, R. M., alcohol determination, A.,

Mayerhoff, H.A. See Colony, R.J.Mayers, M. A., methods of determining the reactivity of cokes, B., 531.

Mayerson, H. S., standardisation of photochemical methods for the measurement of solar ultra-violet radiation, A., 1077.

Maynard, E. J., Greaves, J. E., and Smith, H. H., phosphorus supplements improve sugar-beet by-product rations for cattle, B., 428.

Maynard, J. L., determination of gold in

dental gold alloys, B., 1099.

Maynard, L. A., McCay, C. M., and
Madsen, L. L., influence of food-fat of varying degrees of unsaturation on blood-lipins and milk-fat, A., 886. See also Turk, K. L.

Mayne, J. E. O., modern theories of corrosion. I. Water-line corrosion. 11. Distribution of corrosion, A., 576, 1210.

Mayneord, W. V., fluorescence spectrum of 1:2-benzpyrene, A., 664.

and Roberts, J. E., absorption of short-wave-length X-rays, A., 14. and Roe, E. M. F., ultra-violet absorption spectra of some complex aromatic hydrocarbons. I., A., 267.

Mayo, F., Hunter, T. G., and Nash, A. W., wetted surface in ring-packed towers,

Mayo, F. R. See Kharasch, M. S. Mayr, T. See Bayerle, H., and Borger, G.

Mayrhofer, A., determination of the refractive power of liquids, B., 623. and Wasitzky, A. [with Korn, W.], micro-determination of fluorine in

plant and animal matter, A., 1038. Mayrhofer, H., action of the male sex hormone preparation androstin in female

hypertension, A., 1157. Mayrhofer, J., starch acidity, B., 39. Evaluation of fish meals, B., 394.

Maytag Co. See Bowden, W. H.

Mazé, P., Mazé, P. J., jun., and Anxionnaz, R., absorbing power of roots, A., 121.

Mazé, P. J., jun. See Mazé, P.

Mazel, V. A., viscosity in the system

chlorine-sulphur, A., 150.

Mazjukevitsch, V. A. See Palladina, O. K.

Mazoński, T., and Sucharda, E., direct
synthesis of chloro- and hydroxyquinoline from nitrobenzene, A., 998.

Mazumder, K. C., spectrum of doubly-ionised zine, A., 916.

Mazumder, M. M. Sec Lever, D.

Mazza, F. P., biological oxidation of saturated dibasic fatty acids, A., 1290. Biological oxidation of dibasic and ω-oxidation of monobasic fatty acids, A., 1290. Diffusion of the dehydrogenase of higher fatty acids in various organs, A., 1296.

and Malaguzzi-Valeri, C., mechanism of cerebral glycolysis, A., 895.

Mazza, L., magnetic susceptibility of mixtures of oxides of rare earths. I. Mixtures of neodymium with praseodymium and of neodymium with samarium [oxides], A., 19. Radioactivity of rare earths. I. Distribution of radioactivity in fractionation of cerium earths, A., 130.

and Botti, E., magnetic susceptibility of mixed oxides of the rare earths. II. Samarium-gadolinium mixtures, A., 1453.

Mazzaron, A., hydrolysis of seed proteins, B., 122.

Mazzetti, M., degumming of textile fibres, (P.), B., 539. Mazzoceo, P., determination of indole in

blood, A., 875.

Mead, A. See Johnson, C. H.

Mead, B. See Standard Oil Development

Mead, D. J., Fuoss, R. M., and Kraus, O. A., electrolytic solutions. XIX. Conductance of mixed electrolytes in ethylene chloride; tetrabutyl- and tetramethyl-ammonium picrates, A., 561. Mead, F. B. See Dragstedt, C. A.

Mead, F. C., simple humidity chamber, A.,

Mead, G. A. See Sawhill, J. M. Mead, H. See Internat. Combustion, Ltd. Mead, T. H. See Harington, C. R.

Mead Research Engineering Co. See Hochwalt, C. A., and Thomas, C. A.

Meade, D., and Leckie, J. N., analysis of composite and one-day samples of milk, B., 1229.

Meade, J. E., Nystrom, E. W., and Floridin Co., plaster compositions, (P.),

Means, E. A., and Newman, E. L., condenser system for fractional distillation, A., 956.

Means, T. H., effect of irrigation on soil texture, B., 897.

Mearl Corporation. See Earle, F.

Mears, R. B., effect of composition on corrosion probability of iron and steel, B., 743. Water-line corrosion, B., 841.

and Daniels, H. E., errors in corrosion research, B., 841.

Mears, W. H. See Kistiakowski, G. B. Mecano G.m.b.H. Specialartikel für Kraftfahrzeuge, and Gaul, M., thermostats, (P.), B., 480.

Mecheels, O., and Gruensteidl, E., fluorescence tests for mercerising of cotton

and retting of flax, B., 231.

Mecke, R., near infra-red absorption of hydrocarbons. IV. Anharmonie valency vibrations of polyatomic molecules, A., 662. Determination of linking moments in polyatomic moleculcs, A., 1052.

and Ziegler, R., rotation-vibration spectrum of acetylene (C₂H₂), A., 1444. See also Gänswein, P., Timm, B., and

Vierling, O.

Médard, L., preparation of morpholine, A., 1130. Amides and urethanes derived from morpholine, A., 1130. Raman effect of heterocyclic com-

pounds of the dioxan type, A., 1319. and Marchand, R., Raman effect of neutral alkyl sulphates, A., 407.

Medes, G., metabolism of sulphur; determination of cystine in normal urine, A., 1144. Use of the phosphotungstic acid method of determining ascorbic acid in urines with low ascorbic acid

content, A., 1430. and Padis, K. E., sulphur metabolism. I. Precipitation of cystine from solutions by mercuric and cuprous chlorides and its recovery, as preliminary to its quantitative determination in urine, A., 881.

See also Sterner, J. H.

Medico Chemical Corporation of America. See Ostromislensky, I. I.

Medicus, G., self-excitation of Geiger-Müller counters, A., 1440.

Medinski, C. B., behaviour of aromatic compounds at the anode in nitric acid solutions, A., 976. Behaviour of certain aromatic compounds at the anode, in solutions of potassium nitrate, A., 1239.

Medlin, W. V., interatomic distances in orpiment, realgar, sodium sulphoantimonate enneahydrate, and calcium mercuric bromide, A., 1326.

Meduri, P. See Ricca, B.

Medveczky, A., and Votin, L., soap hæmolysis as a fatty acid hemolysis, A., 622. Medved, N. I., plant methods of determination of lime in slag mixtures of raw materials and cements, B., 235.

Medvedev, A. I., mechanical properties of mixed cellulose nitrate films, B., 56.

Medvedev, I. A., sulphate pulping of waste tanbark oak for production of high-grade paper, B., 186.

Medvedev, S., and Bloch, O., velocity of the reaction between organic peracids and cyclohexene, A., 939.

and Podjapolskaja, A., thermal decomposition of methyl hydrogen peroxide, A., 164.

See also Abkin, A.

Medvedeva, A. See Veselý, V.
Medvedkov, E. See Glikman, S.
Medvedovski, V. See Schligin, A.
Medvei, C. V., action of cortical hormone on blood-cholesterol, A., 643.

Medzuichovskaja, N., accelerator for hot vulcanisation of thin-walled [rubber] products, B., 944.

Meek, C. A., and Lunt, R. W., energy efficiency of ionisation in electrical precipitation, B., 1000.

Mock, H. O., assay of glyceryl trinitrate

tablets, B., 75.

Meek, W.J. See Bunting, H. Meeker, D. R., and Kesten, H. D., patho-

logical calcium deposits, A., 504. Meel, L. van. See Bogaert, A. van.

Meer, J. van der. See De Jong, H. G. B. Meerov, S. M. See Rostovtzev, S. T.

Meerson, I. S. See Kritschevski, I. L. Meerssemann, F., and Séguin, H., bloodcalcium in tuberculosis, A., 506.

Meerwein, H. See Schering-Kahlbaum A.-G.

Meerwein, H. F. See Karrer, P. Mees, C. E. K., kodachrome: a new 16-mm. colour process, B., 430. Sensitising dyes and their application to scientific photography, B., 524.

Mees, R. H., beer sarcina, B., 855.

Meesters, A., influence of heteroauxin on growth of root hairs and roots of Agrostemma githago, L., A., 650. Megaw, H. D., and Simon, F., density

and compressibility of solid hydrogen and deuterium at 4.2° absolute, A., 1330.

Megay, L. von. See Scheffer, L.

Megee, C. R., factors determining winter hardiness in lucerne, A., 648.

Meggers, W. F., and King, A. S., arc and spark spectra of niobium, A., 916.

and Russell, H. N., term analysis of the first spectrum of vanadium (V I), A., 1310.

Meggy, F. A. See Grant, J.

Megrdichian, G. A. See Baril, O. L.

Megson, N. J. L., preservation of compressed cork rings by [artificial] resin impregnation, B., 93. Aldehydo phenolic condensations from a chemical viewpoint, B., 336.

See also Morgan, (Sir) G. T. Mehl, E. See Thomas & Co., Ltd., R. Mehl, R. F., and McCandless, E. L., orientation of oxide films on iron, A., 786.

See also MeBride, D.L.

Mehl, W., thermal properties of binary systems in relation to their use in absorption refrigerating machines, B.,

[with Felsing, and Thomas], comprehensive $\log p-1/T$ diagram for binary system methylamine-water, A., 421.

Mehlenbacher, V. C., colour tests for kapok oil, B., 941.

Mehlig, J. P., spectrophotometric determination of copper in ores and mattes, B., 105. Determination of chromium in chromite, B., 840.

Mehmet, R., and Valensi, G., dissociation of smithsonite, A., 681.

Mehring, A. L., White, L. M., Ross, W. H., and Adams, J. E., effects of particle size on properties and efficiency of fertilisers, B., 114.

Mehrle, R., change of colour of thickjuice in working to molasses, B., 900.

Mehrli, W. Sec Wieland, K.

Mehta, B. V. See Naik, K. G.

Mehta, C. M., aktivin-S, a solubilising agent for starch in sizing and finishing [textiles], B., 39.

Mehta, C. R. See Shah, R. C.

Mehta, D. N., and Jatkar, S. K. K., bismuth electrode, A., 46.

Mehta, D. R., effect of saline and free ammonia on oviposition of Anopheles subpictus (Rossi), B., 46.

Mehta, P. R. See Shah, R. C.
Mehta, S., and Krall, H., phenylthiocarbamides. II. Action of hydrolytic agents on phenylthiocarbamide. III. Action of nitrous acid on phenylthiocarbamide, A., 198.

Mehta, S. M., effect of temperature on borax solutions in presence of polyhydrie substances and organic acids, A., 159.

Parmar, M. U., and Prasad, M., preparation of thorium gels, A., 563. Viscosity of thorium phosphate gelforming mixtures during gelation, A., 796.

See also Joseph, (Miss) O., and Parmar, M. U.

Mei, P. F. See Chou, T. Q. Meier, E. See Siedel, W. Meier, F. W. See Bucherer, H. T., and Stuckert, L.

Meier, R., and Schmiedt, E., carbohydrate exchange after carbohydrate charging and its disturbance in liver diseases. I. Insulin-glucose-water charging, A.,

Meigs, E. B., vitamin-A activity indicated by yellow colour of milk fat, B., 952.

See also Converse, H. T.

Meigs, J. V., and Plastix Corp., liquid coating composition, (P.), B., 287. [Carbohydrate-phenolic] resinous product, (P.), B., 704.

See also Barrett Co.

Meinck, F., backwater in the pulp and

paper industry, B., 141. Meincke, H. D. See Gephart, O. P. Meinel, K., behaviour of linolenic acid.

linseed oil, and tung oil on heating, B., Meinzer, C. F. See Brock, A. S.

Meisel, H., polysaccharides of Amylobacter strains, A., 1561. Meisel, K. See Biltz, W., Juza, R., and

Weibke, F.

Meisenheimer, J., andDorner, association in solution. II. Determination of mol. wts. of fatty acids in benzene, A., 1197.

See also Birekenbach, L

Meissner, I. See Stadler, P. Meissner, K. W., are spectrum of rubidium, A., 262.

Meissner, M. Sec Thompson, Harold W. Meissner, W., superconductivity and other low-temperature phenomena, A., 147.

Meister, G. See Westinghouse Lamp Co. Meister, M. See Adickes, F.

Meister, R. See Rieche, A.

Meitner, L., and Hahn, O., new transformation processes in irradiation of uranium with neutrons, A., 542. See also Hahn, O.

Meitzner, E., Fries-Rosenmund rearrangement of N-acetylcarbazole, A., 211.

Mejbaum, W. See Parnas, J. K. Mejenny, J. F. See Plotnikov, V. A.

Mejuto, M. N., and Calvet, F., 1:3-dioxins. VI. Condensation of p-hydroxybenzoic acid with formaldehyde at low temperatures, A., 1263.

See also Calvet, F.

Mekler, L. A. See Universal Oil Products

Meksyn, D., structure of neutrons and β -disintegration, A., 772.

Melaven, A. D. See Parks, L. R. Meldahl, H. F. See Reichstein, T.

Meldau, R., variations in the atmospheric dust content due to micro-atmospheric influences, A., 1225.

Meldrum, A. N., and Bhojraj, M. G., condensation of chloral with acid amides; properties of CH(OH) CCl₃ group, A., 829.

and Datar, A. S., reduction of the

·CH(OH)·CCl₃ grouping, A., 466. and Kotwal, R. D., constitution of the reduction product of trichloromethylparaconic acid, A., 823.

and Vad, G. M., condensation of chloral and bromal with polyhydric alcohols, A., 708. Constitution of reduction product of chloralacetamide, A., 711.

Melendy, J. G. See Gen. Chem. Co. Melhus, I. E., herbicide, (P.), B., 808. Melin, E., and Nannfeldt, J. A., blue coloration of wood pulp, B., 539.

Meliss, K., measurement of specific heat of iron at high temperatures, B., 104. Melitta-Werke Akt.-Ges., and Bentz, H. W.,

filter paper in cup form, (P.), B., 982. Mělka, J., ascorbie acid content of the organs of rats in vitamin-B deficiency, A., 1567. Ascorbic acid content of different parts of the central nervous system and of the peripheral nerves, A., 1567.

Melkon, B., apparatus for heating inflam-

mable solvents, A., 696.

Mell, C. D., sources of natural dyes [and tanning materials], B., 12. Dyes and tanning substances obtained from the hop plant, B., 12. Sources of natural dyes, B., 311. Red, brown, and purple dyes from aloes, B., 445.

Mellanby, A. L., modern high-pressure boilers and their design problems, B.,

Mellanby, K., humidity and insect metabolism, A., 1143.

Melli, G., and Koradimova, N., influence of parathormone on the magnesium, calcium, and phosphorus content of human blood, A., 903.

Mellon Institute of Industrial Research. See Cretcher, L. H.

Mellor, A. See Brit. Celanese.

Mellor, D. P., and Quodling, F. M., birefringence of potassium chloropalladite and potassium chloroplatinite, A., 1188. Mellor, G. A. See Jenkins, C. H. M.

Mellor, H. B., and Sissen, L. B., effects of smoke on building materials, B., 103.

Mellor, J. W., spitting of glazes in the enamel kiln. I. and II., B., 496, 989. Chemistry of the Chinese copper-red glazes, B., 1040.

Melnick, J. See Gray, I. Melnik, B. D., intensification of the productive part of tower systems, B.,

Melnik, P. A., use of flue dust in filtering sugar-house products, B., 1120.

Melnikov, N. N., organic analysis; determination of sulphur in organic compounds, A., 90. Organic analysis; determination of copper in organic compounds, A., 90. Organic boron derivatives. I. Action of halogens and hydrogen peroxide on diarylboric acids, A., 1004.

and Gratschev, G. P., synthesis of dihalogeno-thallium organic compounds. A., 712. Reaction of thallous chloride with certain organic lithium compounds, A., 974.

See also Nametkin, S. S.

Melnikova, A. I. See Litvinov, N. D. Meloche, V. W. See Juday, C., and Steiner, J. F.

Melodia, G. See Gatto, I.

Mélon, J., crystalline form and optical properties of calcium iodato, A., 1054.

See also Cesàro, G., and Donnay, J. D. H.

Meloni, O. See Dogliotti, G. C. Melot, G. See Mabique, P.

Meltsner, M., reflecting surfaces, (P.), B.,

Wohlberg, C., and Kleiner, M. J., reduc-

tion of organic compounds by ethanolamines, A., 319.

Melville, H. W., interaction of gases with solids, A., 172. Effect of imprisonment of resonance radiation in decomposition of ammonia and of trideuterammonia, A., 299. Mercury-photosensitised polymerisation of acetylene, A., 299. Evaporation from irregular surfaces, A., 1191. Characteristics of mercury-rare gas discharge tubes, A., 1437.

and Gray, S. C., polymerisation of phosphorus, A., 298. Vapour pressure of red phosphorus, A., 1191. Effect of oxygen on the clean-up of phosphorus vapour by tungsten filaments, A., 1196.

and Rideal, E. K., sorption of hydrogen and deuterium by copper and palladium. I. Behaviour of copper and copper oxides. II. Sorption by palladium and diffusion through copper, A., 422.

Melville, J. I. See Stehle, R. L.

Melville, W., Brown, A. M., and Raymakers Synd., surfacing of sheet material with pigments, varnishes, lacquers, waterproofing solutions, etc., (P.), B., 110.

Melvin, E. H., and Wulf, O. R., ultraviolet band spectrum of N2O3, A., 8. Ultra-violet absorption of mixtures of NO, NO2, and H2O, A., 135.

Membranfilter G.m.b.H., apparatus for dialysis, electrodialysis, osmosis, electroosmosis, filtration, and electrofiltration,

Menchikovsky, F., seasonal changes of the moisture content of "solaga" soil of Palestine and their influence on vegetation, B., 1170.

Mendel, L. B., and Hubbell, R. B., relation of rate of growth to diet. III. Comparison of stock rations, A., 508.

and Vickery, $H.\ B.$, nutrition: vegetable proteins, A., 368.

See also Alcott, H. S., and Sherman, C. C.

Mendel, W., and Sylvania Industrial Corp., artificial filaments, (P.), B., 270.

Mendeleev, J., abnormal density of water from the deep pertions of Lake Baikal,

Mendeléev, P., diagnosis of cancer, Λ ., 1538.

Mendelsohn, R. See Trotzki, J. Mendelssohn, K., superconductivity and other low-temperature phenomena, A., 147. Transition between the superconducting and normal state. Magnetic induction in mercury, A., 1189.

and Moore, (Miss) J. R., superconductive tantalum, A., 556.

and Pontius, R. B., time effects in superconductors, A., 1056.

Sec also Babbitt, J. D., and Keeley, T. C. Mendius, W., and Sinclair Refining Co., fractionation of hydrocarbons, (P.), B.,

Mendive, J. R., and Deulofeu, V., ascorbic acid in glands; isolation from the

pituitary, A., 119. Mendizábal, M. M. See De Amilibia, E. Mendlik, F., oxidation-reduction potentials and their significance in the brew-

ery, B., 167. Mendoza, M. See Imperial Chem. Industries.

Menefee, A. B. See Armstrong, H. H.

Meneghetti, E., use of sodium tetrathionate in cyanide poisoning, A., 377. Toxicity of sodium tetrathionate, A., 1023. Chemistry, pharmacology, and chemotherapy of thiazyl substances, A., 1292.

Meng, K_{\cdot} , and Sah, P. P. T_{\cdot} , azides. V. 3-Nitrobenzazide as reagent for the

identification of amines, A., 873.

Menger, A., and Unyte Corp., effecting adhesion, (P.), B., 1114.

Meniajlov, A. A., and Naboko, S. I., occurrence of platinum in the Far East, A., 1483.

Menke, J. F., hæmolytic action of photofluorescein, A., 747.

Menkin, V., and Warner, C. R., significance of carbohydrate metabolism and local acidosis in inflammation, A., 1540.

Menn, W. See Hönigschmid, O.

Mennerich, F. A., rapid microscopical
measurement of [textile fibre] diameters in cross-section, B., 269.

and Hougen, O. A., two-tone dyeing as related to the shape and size of silk filaments, B., 366.

Menon, A. S., refraction of light by colloidal solutions. I. Arsenic and antimony trisulphide sols, A., 1067.

Menon, E. V., and Peacock, D. H., stereochemistry of tervalent nitrogen compounds. I. Attempted resolution of substituted derivatives of aniline, A.,

Menon, S. R. K., chemistry of coir fibre. I. and II., B., 1145, 1199.

Menschikov, G., syntheses of a new heterocyclic type formed from two condensed pyrrolidine rings, A., 1123.

and Grigorovitsch, A. N., alkaloids of Anabasis aphylla. XII. Attempted synthesis of anabasine; chemistry of 2:3'-dipyridyl, A., 617.

and Rubinstein, V., alkaloid from Tricho-

desma incanum D.C., A., 88.

and Shdanovitseh, J., alkaloids of Heliotropium lasiocarpum. V. Lasiocarpine. VI. Synthesis of pyrrolidine derivatives, A., 869, 1130.

Mensforth, G. W., filtering apparatus, (P.),

B., 912.

Mensing, C. C. See Smith, F. B.

Mensing, R., filtering apparatus and operation thereof, (P.), B., 673.

Menten, M. L. See King, C. G.

Mentl, S., Kárasek, J., and Kruta, V. importance of cholesterol in action of calcium on heart muscle, A., 374.

Mentzer. See Armand-Delille, P.

Mentzer, C. T. See Du Pont de Nemours & Co., E. I.

Menyharth, P., determination of the alcohol in brandy, B., 1122.

Menzel, H., Schulz, Hans, and Deckert, H., conditions for formation and existence of kernite, Na₂B₄O₇,4H₂O, A.,

Menzel, K. C., injurious effects of copper sprays, B., 387. Menzer, S. J. See Brit. Celanese.

Menzies, A. W. C., solubility measurement; solubilities in the system SrCl2-H2O

from 20° to 200°, A., 932. See also Collins, E. M., and Miles, F. T. Mepham Corporation, G. S. See Stinson, T.K.

Mercer, D., and Robertson, A., picrotoxin. II. Picrotone and pierotonol, A., 731.

Mercer, R. L. See Powell, C. F. Merchant, P. W., contacting of hydrocarbon oil with a liquid reagent, (P.), B.,

Merchante, F. R., composition of snake venom and comparative action of the globulins and albumins, A., 1012

Mercier, F., biological assay of hydrastine, berberine, and their mixtures by the isolated intestine, A., 1149.

and Balansard, J., constituents of Hamamelis virginica, A., 533.

and Vignoli, L., biological assay of liquid extracts of Hydrastis, A., 1149.

Merck, E., salts of aromatic aminoalcohols, (P.), B., 298. Stabilised preparations of divinyl ether, (P.), B., 715. Derivatives [amides and hydrazides] of pyrazinemonocarboxylic acid, (P.), B., 1130.

Merck, F. See under Merck, E.

Merck, K. See under Merck, E. Merck, L. See under Merck, E.

Merck, O., radioactive effect of potassium on the vegetative nervous system, A.,

Merck, W. See under Merck, E.

Merck & Co. See Cline, J. K., and Major,

Merckel, J. H. C., viscosity of sugar and dextrin solutions containing salts, A., 22. Viscosity and lyotropic numbers, A., 426. Viscosity and adsorption of starch sols, A., 795.

Merco Centrifugal Separator Co., Ltd. See Peltzer, A.

Merglen, M. J. See Sartory, A.

Merica, P. D., Vanick, J. S., Wickenden, T. H., and Internat. Nickel Co., chillcast iron alloys, (P.), B., 459. See also Mudge, W. A.

Merkel, H., making coffee infusions more

digestible, (P.), B., 218.

Merkenschlager, K., galvanising [electro-plating] apparatus, (P.), B., 699. Merkel, R. See Abderhalden, E.

Merklen, L., Franck, C., and Grandpierre,

R., stimulating action of secretin on the secretion of vagotonin by the pancreas, A., 645.

See also Santenoise, D.

Merkus, P. J., and White, Alfred H., ultimate analysis of organic substances from combustion in a bomb calorimeter, A., 1280. Evaluation of oils for manufacture of carburetted water-gas by their available hydrogen content, B., 914.

Merlau, O. See Lauber, H. Merley, S. R. See Doherty Res. Co.

Merlis, M. N., and Petrova, O. D., adsorption by active charcoal of residual oxides of nitrogen from the tower sulphuric

acid process, B., 930.

Merrell Co., W. S. See Rider, T. H.

Merriam, C. J., and Wright, S. G., nonblistering roofing, (P.), B., 992.

Merriam, \bar{H} . F. See Gen. Chem. Co. Merrill, (Miss) A. T. See Hann, R. M.

Merrill, D. R., Blount, A. L., and Union Oil Co. of California, separation and recovery of naphthenic acids and phenols [from petroleum extracts and distillates], (P.), B., 486.
Subkow, P., and Union Oil Co. of Cali-

fornia, extraction process [for hydrocarbon oil mixture], (P.), B., 262. and Union Oil Co. of California, lubric-

ating oil, (P.), B., 87. Petroleum plastic, (P.), B., 110. Insecticide and

fungicide, (P.), B., 468.

Merrill, F. D., Baymiller, C. C., and
Nichols, P. F., determination of moisture

in dried apples, B., 42.

Merrill, H. B., ageing tests with leathers tanned in part with sulphite-cellulose

[waste] extract, B., 897.

Merrill Co., apparatus for precipitating metals from solutions, (P.), B., 154. Precipitation of gold or other metals from metallurgical cyanide solutions, (P.), B., 603.

Mills, L. D., Crowe, T. B., and Haun, J. C., recovery of precious metals from ores or precious metal-bearing deposits, (P.), B., 1213. See also Mills, L. D.

Merrimac Chemical Co., carboxylic acid [alkyl] esters, (P.), B., 182.
See also Dyer, C. P., and Maxim,

M. S.

Merritt, C. A., gypsum crystals from Alfalfa County, Oklahoma, A., 49.

Merritt, C. W., raw leadless glazes for

pottery and tile at cone 2, B., 454.

Merritt, M. M., and Tanning Process Co., tanning of hides and skins, (P.), B., 339. Machine for use in treating hides, skins, leather, and other similar pieces of work, (P.), B., 707.

See also Tanning Process Co.

Mershon, R. D., electrolytic rectifier and condenser, (P.), B., 1051.
Merten, H., and Schlüter, H., heats of

combustion of organic compounds of selenium, A., 937.

Mertens, A., diffusion of sucrose in highly concentrated solutions, A., 1062.

Mertens, Elisabeth, uroporphyrin in acute hæmatoporphyrinuria, A., 503.

Mertens, Eug., and Fonteyn, M., mechanism of formation of benzaldehyde-resorcinol resins, A., 840. Polymerisation of a-methylacrylonitrile, A., 1238.

Mertens, O., Rein, H., and Valdecasas, F. G., effect of adrenaline on bloodvessels in resting and working muscles,

See also Diebold, O., and Kahlson, G. Mertens, W. See Nagel, W., and Ohle, H. Mertins, S., effect of addition of acid on conservation processes in green crops with reference to lactic acid production and protein decomposition, B., 122.

Mertzlin, R. V., physico-chemical properties of aqueous systems containing amines, and capable of stratification, A., 24. Viscosity of binary systems at critical zones, A., 24. Shape of critical temperature curves of binary systems, A., 152. Surface tension of systems containing a tautomeric substance, A., 677.

and Trifonov, N.A., temperature dependence of surface tension of solutions, A.,

and Ust-Katschkintzev, V. F., homogenisation by means of amines of certain aqueous amine systems with an upper critical temperature of stratification, A., 24. Separation of binary liquid mixtures into two layers, A., 24.

See also Ust-Katschkintzev, V. F. Merwin, H. E. See Greig, J. W.

Merz, K. W., and Hotzel, J., [attempted] synthesis of furocoumarins from 4-hydroxy-5-methoxyisophthaldialdehyde, A., 859.

and Wu, Y. H., glycosides of the flowers of Linaria vulgaris, L.; constitution of linarin and pectolinarin, A., 458.

Merz, W. See Knoop, F.

Meschalkina, L. See Neiman, J. Meschkova, N. P., colorimetric determination of carnosine and histidine, A., 1006. Meseck, G., phosphoric acid [fertilisers] in pond culture, B., 210.

Meshenni, J. P., gels of aluminium bromide with nitromethane, A., 1068.

Mesquita, B. See Schön, K.

Mesrobeanu, L., and Calalb, G., chemistry of the somatic antigen of dysentery bacillus, A., 1028.

See Boivin, A., Calalb, G., Ciuca, M., and

Magheru, G.

Messenger, T. H., sucrose as a standard for obtaining absolute viscosities, A., 697. Refraction of light by raw rubber, B., 705. and Scott, J. R., crêpc [rubber] soling.

II. Softening and freezing, B., 847.

Messer, A. C. See Shaw, L. A.

Messer, W. E., and United States Rubber Co., [rubber] latex composition, (P.), B., 338. Method of reacting mercapto[aryl]thiazoles with primary amines and formaldehyde, (P.), B., 444.

Messerly, G. H. See Aston, J. G.Messerschmidt, W., investigation of ionisation by ultra-radiation with a double chamber, A., 133. Barometer effect of ultra-radiation collisions, A., 1174. Residual current in ionisation-pressure chamber, and variation with pressure of

ionisation due to cosmic rays, A., 1441. Cosmic-ray bursts, A., 1442.

Messini, M., combined action of thymus and irradiated ergosterol and the thymus of ergosterol-treated animals on experimental rickets, A., 1303.

and Coppo, M., healing of bone fractures in relation to the effect of thymus and the lime-fixing vitamin, A., 1303.

Messkin, V. S., and Margolin, J. M., magnetic stability of ferromagnetic

iron alloys. I., A., 1455. and Somin, B. E., Akulov's theory of coercivity, A., 416. Non-magnetic cast iron, B., 993.

Somin, B. E., and Margolin, J. M., nickel-aluminium steel "MK.," B.,

Messner, M. C. See Davidson, L. P. Messonshnik, S. S. See Korenman,

Meston, A.W. See Cheney, M.E.Mestre, H., precision photometer for study of bacteria and other micro-organisms, A., 382.

Mészáros, G., and Münchberg, F., change in weight of eggs on boiling, B., 41.

Metal Alloys, Inc. See Warner, T. H. Metal Finishing Research Corporation, coating of lead, tin, cadmium, copper, or alloys thereof, (P.), B., 602.

See also Tanner, R. R.

Metallgesellschaft Akt.-Ges., rocking furnace, (P.), B., 2. Rubber latex and latex concentrates suitable for adhesive purposes, (P.), B., 32. Recovery of sulphur dioxide from gases, (P.), B., 146, 496. Apparatus for electrical separation of mixed particles, (P.), B., 332. Performing reactions in the gaseous or vapour phase in presence of catalysts, (P.), B., 431. Sponge rubber from aqueous rubber dispersions, (P.), B., 465. Decomposition of wool grease, (P.), B., 846. Concentration of rubber latex and similar vegetable juices, (P.), B., 945. Vessels, pipes, apparatus, and parts thereof capable of resisting chemical corrosion, (P.), B., 1073. Magnesium sulphate with a low water content or in the anhydrous condition, (P.), B., 1092. Solid magnesium sulphate monohydrate, (P.), B., 1206.

and Brücke, O., hydrogenation of fatty acids, (P.), B., 1107.

and Verein. Deuts. Metallwerke A.-G., oxygen-free_copper of high conductivity, (P.), B., 416.

Metallwerke Akt.-Ges. Dornach, bronzing of copper and copper alloys, (P.), B.,

Metamine Ges.m.b.H., deoxidation of zinc, (P.), B., 1162.

Metcalie, T. P. Sce Clemo, G. R.

Metalie, W. J. See Patterson, W. S.

Metlitzkaja, R. A., dyeing fat-liquored chamois, B., 928.

and Tzukerman, B. I., black dyeing of chamois, B., 928.

See also Tzukerman, B. I. Metrot. See Louis, R.

Mettier, S. R. See Kellogg, F.

Metz, F. See Fichter, F. Metz, L., fireproofing wood, B., 1096. Metz, R. V. See Lacy, P. B.

Metzger, F.J., Backus, A.A., Air Reduction Co., Inc., and U.S. Industrial Alcohol Co., purification of carbon dioxide gas, (P.), B., 319.

Metzger, F. W., increased attraction of bait used in Japanese beetle traps by addition of phenylethyl alcohol, B., 1117.

and Maines, W. W., relation between physical properties and chemical components of various grades of geraniol and their attractiveness to the Japanese beetle, B., 571.

Metzger, \hat{H} ., Barthelmé, \hat{P} ., and Urban, M., variations of scrum-phosphatase after ingestion of chloroform, A., 245.

See also Grimm, H. G.

Metzger, K., relation between melting temperature of glasses, output, and flow in tank furnaces, B., 543.

Metzger, W. F. See Swoboda, H. O.
Metzger, W. H. See Grandfield, C. O.
Metzinger, E. F., lacquer analysis, B., 703.
Metzner, H. See Hiltner, P. P. Meulen, (Mlle.) A. T. H. van der. See

Böeseken, J.

Meulen, H. ter, and Ravenswaay, H. J., determination of nitrogen in compounds containing halogens by the hydrogenation method, A., 743.

Meuly, W. C. See Du Pont de Nemours &

Co., E. I.

Meunier, A., presence of maltose in the storage organs of Lathyrus silvestris, A.,

Meunier, F., speed of dissociation of carbon monoxide in presence of iron and its

oxides, A., 1076.

Meunier, F. J., purification of coal or similar products, (P.), B., 1030.

Meunier, L., emulsions of fatty substances with hydrocarbons and their industrial applications, B., 418.

Meunier, P., electrophotometer of barrierlayer [photo-] cells intended for practical opacimetry, A., 445. Chemical allometry in plant growth, A., 1034.

Meurice, R., determination of phosphoric acid in superphosphates, B., 1036. and Martens, P., determination of iron

and aluminium by Crispo's method in natural phosphates, B., 18. Meusel, A. See Fischer, F

Meuser, L., Leaper, P.J., and U.S. Rubber Co., reaction products of ketones and amines [vulcanisation accelerators], (P.), B., 685.

Meuwsen, A., esters of thiosulphurous acid S₂(OR)₂, A., 821. and Gebhardt, Hans, sulphur monoxide

diethylacetal, S(OEt)₂ [ethyl sulphoxylate], A., 821.

Mevis, A. See Breckpot, R.

Mewborne, R. G., and Niagara Sprayer & Chem. Co., treatment of tobacco for insecticidal purposes, (P.), B., 709.

Meyer, A. See Cernatescu, R. Meyer, Alfred. See Dixon, T. F.

Meyer, André, and Drutel, H., detection of dinitrophenol and its derivatives in urino, A., 99.

and Heimann, P., nitroso-derivative of 4-hydroxycarbostyril, A., 1265. Halogenation of oxidation products of 2:4-dihydroxyquinoline, A., 1266.

Meyer, A. F., possible dangers to health in drinking water from reservoirs, B., 350. Removal of oxygen, iron, and manganese from drinking and service water, B., 1022. Properties of drinking waters obtained in forests, B., 1182. Meyer, C. E., and Rose, W. C., spatial

configuration of [natural] α-amino-βhydroxy-n-butyric acid, A., 1494. See also McCoy, R. H.

Meyer, C. I., manufacture of soap in tablets, etc., (P.), B., 558.

Meyer, D. See Kippe, K. H. Meyer, E. G. E., and Burgoyne, E. C., [coloured] artificial filaments and such as are adapted for use for textile purposes, (P.), B., 451. Meyer, F. W. See Hottel, H. C.

Meyer, G., Henkes, R. A., and Slooff, A., preparation of pure carbon monoxide,

and Slooff, A., determination of carbon monoxide in admixture with hydrogen and methane, A., 42.

Meyer, G. M. See Levene, P. A.

Meyer, H., determination of wear-resistance as an example of material testing, B., 841.

Meyer, Herbert, nitrogen-free aliphatic compounds as organic nutrients of algae, A., 531. Cultivation of an alga in concentrated heavy water, A., 1034. Meyer, H. K. See Scholl, R.

Meyer, Jacob, pure phenols from lignite tar, shale tar, and low-temperature tars,

(P.), B., 485. Meyer, Jacques. See Sartory, A. Meyer, Jules. See Ruzicka, L.

Meyer, Julius, and Kawczyk, M., rhodium

chloride, RhCl₃, A., 1218. and Spormann, W., esters of perchloric acid, A., 1360.

and Taube, W., rubidium fluorides and silicofluorides, A., 944. Cupric salts of aminosulphonic acids, A., 944. Meyer, J. D. Seo Reid, E. E.

Meyer, Karl, Dubos, R., and Smyth, E. M., action of the lysin of pneumococcus on certain tissue-polysaccharides, A., 1554.

and Palmer, J. W. [with Smyth, E. M.]. glucoproteins. II. Polysaccharides of vitreous humour and of umbilical cord, A., 1138.

Thompson, R., Palmer, J. W., and Khorazo, D., lysozyme, A., 518. Mechanism of lysozymo action, A., 638.

Meyer, Kurt (Berck-Plage), nature of tuberculous antibodies: some properties peculiar to the guinea-pig; existence of protein-fat antibodies, A., 877, 1136. Antibodies with multiple affinities, A., 1010.

and Pie, A., nature of tuberculous antibodies, A., 224. Isolation of antibodies by fixation on an adsorbentantigen system with subsequent regeneration, A., 748.

Meyer, Kurt (Berlin-Zehlendorf). See Soc.

Chem. Ind. in Basle.
Meyer, K. H., theories of narcosis, A., 240. Inorganic substances with rubber-like properties, A., 276.

and Brentano, W., maize starch, B., 1173. and Ferri, C., properties of higher polymerides in solution. III. Action of ultra-violet light on dissolved caoutchouc, B., 847.

Hauptmann, H., and Sievers, J. F., permeability of membranes. III. Ionic permeability of non-aqueous liquid layers, A., 1335.

and Hemmi, H., theories of narcosis,

and Lotmar, W., constitution of crystallised part of cellulose. IV. Elasticity of cellulose, A., 276. Structure of chitin of fungi, A., 639. Elementary lattice of crystallised caoutchouc, A., 1327.

Meyer, K. H., Lotmar, W., and Pankow, G. W., polyphosphonitrilic chloride, as inorganic "rubber," A., 1450. and Sievers, J. F., permeability of mem-

branes. I. Theory of ionic permeability. II. Experiments with artificial selective membranes. IV. Analysis of structure of vegetable and animal membranes, A., 1065, 1335.

and Wyk, A. van der, [viscosity of solutions of aliphatic hydrocarbons], A., 562, 586. Viscosity of dilute solutions: technique and measurements with solutions of hydrocarbons, A., 1336.

See also Iterson, G. van jun., Lotmar, W., Magnus-Levy, A., and Wyk, A. van der. Meyer, Lothar, investigation of equilibrium between a boiling liquid and its vapour

by thermal analysis, A., 419.

Meyer, Ludwig, and Rennenkampf, U. von, aggregate analysis [of soils] by Tiulin's method and determination of the aggregate fraction, size of aggregates, and ability of soils to form aggregates, B., 610.

Meyer, Madeleine, and Frey-Wyssling, A., refractivity of cellulose as function of the degree of swelling, A., 140.

Meyer, Maxence, preparation of diethoxy-succinic esters, A., 1231. Meyer, O., Eilender, W., and Walz, A., metallurgy of the crucible steel process, B., 838.

Sec also Eilender, W.

Meyer, P., colloid osmotic pressure of the hæmolymphs of some terrestrial invertebrates, A., 625. Colloid osmotic pressure of the body-fluids of freshwater animals, A., 1405.

See also Lumière, A. Meyer, R. See Günther, P.

Meyer, Reinhard. See Diels, O.

Meyer, R. F., and Meyer Mineral Separation Co., treatment of [complex coppernickel] ores, (P.), B., 416. Metallurgical process [for oxidised ores], (P.), B., 601.

Meyer, R. K., Miller, L. C., and Cartland, G. F., biological activity of theelol, A., 388.

See also Allen, W. M., Cartland, G. F., and Gnstus, E. L.

Meyer, Walter, health injurious effects of synthetic resins, B., 814.

Meyer, Wilfried, electrical conduction in somi-conductors, A., 139. Current, breakdown, and supersonic vibrations in dielectric liquids, A., 1330.

and Patent-Treuhand-Ges. f. Elektr. Glühlampen m.b.H., electrical resist-

ances, (P.), B., 1001.

Meyer, Wilhelm, alterations in [sugar] sludge by cold preseparation, B., 854. Meyer, W. R., determining the thickness

of zinc coatings, B., 795.

Meyer-Gaus, K. See Barmen, G. B., and Hartmann, August.

Meyer-Hermann, K., treatment of heartand dry-rot in beetroot, B., 853. Mcyer-Hoissen, O. See Geilmann, W.

Meyer Mineral Separation Co. See Meyer, R. F.

Meyerhof, O., hexokinase, A., 521. Cellfree alcoholic fermentation, A., 1555. and Kiessling, W., phosphate transference by means of phosphopyruvic acid in alcoholic fermentation of sugar, A., 246. Lactic acid formation in muscle, A., 371. Effect of arsenates on fermentation, A., 1026. Cozymase pyrophosphate, A., 1419.

Meyerhof, O., Lohmann, K., and Schuster, P., aldolase. I. Aldol condensation of dihydroxyacetonephosphoric acid with acetaldehyde. II. Aldol condensation of dihydroxyacetone with glyceraldehyde, A., 1232.

and Möhle, W., changes of volume of muscle as an expression of chemical

processes, A., 507.
and Schulz, W., energy relationships in enzymic formation of lactic acid and synthesis of phosphagen, A., 245. Determination of hexoses by fermentation, A., 1490.

Meyerhofer, A. F. See under Meyerhofer & Co.

Meyerhofer, E. A. See under Meyerhofer & Co.

Meyerhofer & Co., [linings for] rotary [cylindrical] furnaces, (P.), B., 498.

and Dynamidon-Werk Engelhorn & Co., G.m.b.H., furnace linings, (P.), B.,

Meylan, L. See Perrier, A.

Meyler, L., Bence-Jones proteinuria, A.,

Meynen, H. L. K., and Standard Brands, Inc., apparatus for manufacturing vinegar, (P.), B., 1174.
Meythaler, F., and Schroff, G., intensity of

action of insulin in healthy and diseased men, A., 1031.

Mezen, J. F. See Koepf, G. F. Mezener, M., and Wehrli, S., micro-determination of m.p., A., 181.

Mezey, K., and Staub, H., action of poisons on the isolated heart-muscle strip of frog. II. Alkaloids and their parent substances, A., 1295.

Mezger, R., removal of carbon monoxide from town's gas, B., 434, 725.

and Payer, T., technique of measurement of gas compressed into cylinders, B., 726.

Mezincescu, M. D., and Szabo, F., determination of non-protein-nitrogen of tissue, A., 1308.

See also Deleano, N. T.

Mezzadroli, G., and Sgarzi, L., effect of some alkaloids on soil micro-organisms: nitrogen fixers. I. Effect on B. radicicola, A., 383. Miau, T. B. See Stather, F.

Micamold Radio Corporation. See Sklar,

Michael, A., and Carlson, G. H., mechanism of reactions of metal enolates of acetoacetic ester and related compounds. III. Copper enolates, 455.

and Weiner, N., sulphonation process, A., 453. Carbon syntheses with malonic acid and related compounds. II. Aromatic aldehydes, A., 722. Formation of enolates from lactonic esters, A., 966.

Michael, V. M., and Tanner, F. W., microbiology of merchantable creamstyle canned maize, B., 470.

Michaelian, M. B. See Hammer, B. W. Michaelis, K. See Raub, E.

Michaelis, L., function of fluorine in the 514. Glass human organism, A., electrode with galvanometer reading, 582. Potentiometric study [sodium] β-naphthaquinonesulphonate; semiquinone problem, A., 992. Semiquinones of neutral-red and safranines, A., 1392. Study of keratin, B., 70.

Michaelis, L., and Schubert, M. P., dimethylglycine buffer, A., 1207.

Schubert, M. P., and Smythe, C. V., semiquinone of the flavin dyes, including vitamin- B_2 , A., 1392.

and Smythe, C. V., influence of certain dyes on fermentation and respiration of yeast extract, A., 759.

See also Goddard, D. R.

Michaelis, M., formation of succinic acid by B. coli; production of succinic acid in relationship to synthesis of proteins, A., 247. Combined action of succinodehydrogenase and aspartase in Bacterium coli, A., 1561. See also Adler, E.

Michaelis, P., coking tests with stored coal dust, B., 864.

Michaelis, R. See Schönberg, A.

Michail, D., and Pacurariu, I., serumlipase during naphthalene ocular lesions in rabbits and its probable rôle in the pathogenesis of senile cataract, A., **152**.

Michailenko, J. J., and Kreschkov, A. P., tautomerism of toluene, from its ab-sorption spectra at different temper-

atures, A., 921.

Michailov, A. N., changes in saturation of hides with water in vat-tanning, B., 420. Tanning with pine extracts, B., 420. Russian leather from rejected hides, B., 948.

See also **Zobina**, E. A.

Michailov, B. M., and Arbusov, J. A., thermal decomposition of olefinic hydrocarbons, A., 1485. See also Arbusov, J. A.

Michailov, G., synthesis of lepidine and its by Knorr's method. I. derivatives

Synthesis of lepidine, A., 998.

Michailov, L. I. See Vulifson, V. I.

Michailov, N. See Molodenski, V.

Michailov-Micheev, P. B., influence of "light spots" on the mechanical properties of boiler steel containing copper, B., 993.

Michailova, B. M. See Arbusov, A. E.

Michailova, E. See Temkin, M. Michailova, E. P. See Volf, F. F. Michailova, M. N., and Neuman, M. B.,

mechanism of autoxidation of hydrocarbons in the liquid phase, A., 1211. The ceteno scale and the induction period preceding the spontaneous ignition of Diesel fuels in bombs, B.,

See also Obuchov, A. P.

Michalev, P. F. See Schemjakin, F. M. Michalski, E., potentiometric titration of phosphates, A., 442.

Michaud, F., characteristic point of pure substances, A., 19. Energetic theory of thermo-electric phenomena, A., Electrification by friction, A., 1181.

Michaud, J. E., water-purifying device, (P.), B., 174.

Micheel, F., snake poisons, A., 1296. and Bischoff, G., $a\beta$ -dimethylascorbic

acid and aβ-dimethyl-4-ascorbic acid, A., 1362.

and Hasse, K., a-deoxy-l-ascorbic acid, A., 706.

and Jung, F., snake venom, A., 893. and Kimpel, W., derivatives of a dicyclic condensed ring system formed from two pyrrole rings [pyrrolizine], A., 1265.

and Kraft, K., snake poisons, A., 635. Micheel, H. See Schmalfuss, K.

Michel, A., conditions of demagnetisation of rhombohedral iron sesquioxide, A., 785. Steels and alloys for permanent magnets, B., 414. Corrosion-resistant steels, B., 547.

and Chaudron, G., stabilised cubic iron sesquioxide, A., 143.

and Giry, L., working of corrosionresistant steels, B., 547.

Michel, C., sparking plug provided with an ionising catalytic element, (P.), B., 1002. Michel, H. J. V. See Gordon, B., jun.

Michel, J. M., and Magnesium Development Corp., protection of magnesium and its alloys, (P.), B., 1213.

Michel, L. P., determination of degree

of mercerisation, B., 189.

Michel, M. See Doladilhe, M.
Michel, R. See Lebeau, P.
Michel, W. G., electrolytic cell [for manufacture of caustic alkali and chlorine from brines], (P.), B., 333.

Michel-Durand, E., phosphorus metabolism

in leaves of persistent-foliage plants, during yellowing, A., 392. Metabolism of phosphorus compounds of the acorn during germination in light, A., 767. Phosphorus metabolism of acorns during germination in darkness, A., 908.

Michel-Lévy, A., and Muraour, H., variation of spectra of detonations with nature of the surrounding gas, A., 7. Influence of pressure of surrounding gas on luminosity accompanying detonation of explosives, A., 568.

See also Muraour, H.

Michelazzi, L., physiological and pathological actions of some fresh and autolysed organ extracts, especially panereas extracts, A., 633.

Michele, G., adrenal capsules and gaseous metabolism, I. II. Effect of pilocarpine on gaseous exchange in decapsulated

rats, A., 754. Micheli. See Ferranti.

Micheli, L. I. A., instruments used in control of sugar boiling, B., 117. Micheli, P. L. See Scoz, G.

Michelin & Co., impermeable coating for rubber, (P.), B., 208.

Michelis, J. L. See Grünberg, A. A. Michelman, J., cleansers and deleterious effects on white upper leathers, B., 208. Michelotti, L. Sco Passerini, L.

Michels, A., De Gruyter, J., and Niesen, F., isotherms of ethylene between 0° and 150° and at pressures from 20

to 270 atmospheres, A., 788. Gerver, J., and Bijl, A., influence of pressure on solubility of gases, A., 1194. and Michels-Veraat, (Mrs.) C., isotherms of CO₂. I. Between 0° and 150° and pressures from 16 to 250 atm.; (Amagat densities 18-206), A., 418.

Michels-Veraat, (Mrs.) C., and Bijl, A., indication of a decrease in the polarisability of a non-polar molecule by

pressure, A., 1322.

Michels-Veraat, (Mrs.) C., and Wouters, H., isotherms of CO₂. II. Between 70 and 3000 atm. (Amagat densities 200--600), A., 418.

and Nederbragt, G. W., isotherms of methane between 0° and 150° and densities 19 and 53 Amagat (pressures between 20 and 80 atm.), A., 20. Isotherms of mothane between 0° and 150° for densities up to 225 Amagat; calculated specific heat, energy, and entropy in the same region, A., 1058.

Michels, A., Wouters, H., and De Boer, J., isotherms of nitrogen between 200 and 300 atm. and 0° and 150°, A., 1059. Calculation of thermodynamic properties of nitrogen up to 3000 atm. between 0° and 150°, A., 1059.

See also Lenssen, M. H. Michels, W. C., and White, G., heat losses from a tungsten wire in helium, A., 1059. Michels-Veraat, (Mrs.) C. See Michels, A. Michelson, E. M. See Hoftman, M. V. Michelssen, F., and Telefunken Ges. für

Drahtlose Telegraphic m.b.H., lumines-

cence screen, (P.), B., 460. Michener, H. D., effects of ethylene on plant-growth hormone, A., 394.

Michi, K. See Tange, U. Michigan Steel Casting Co., and Blagg, G. E., electric furnace, (P.), B., 65. Michlin, D., and Fetissova, T., effect of

electrolytes on synthesis of lactose, A., 97.

Jemeljanov, A., and Solovjeva, M., the Schardinger enzyme and xanthineoxidase of milk, A., 1296.

Michon, P., Vérain, M., and Ziégler, A., isohemoagglutination and albumins, A., 748. Isohamoagglutination and viscosity, A., 748.

Michov, M. Sce Karaoglanov, Z.

Mickelson, M., Reynolds, H., and Workman, C. H., fermentation of pyruvic acid by colon-aërogenes bacteria, A., 1561.

Mid-Co Products Co. See Hantla, A. Mid-Continent Petroleum Corporation. Sec Bennett, H. T.

Middelbeek, A. See Westenbrink, H. G. K. Middleham, T. H. See Sarjant, R. J. Middleton, C. O. See Gary, W. W.

Middleton, G., viscosity, plasticity, thixotropy. II. Technical viscosimetry, B., 672.

See also Cocking, T. T.

Middleton, H. E., and Slater, C. S., extent to which crosibility of a soil can be anticipated by laboratory physical and chemical methods, B., 658.

Middleton, W.S. See Arnold, H.L. Midgley, T., jun., and Gen. Motors Corp., testing for halogens, (P.), B., 815.

Henne, A. L., and Gen. Motors Corp., aliphatic halogenefluoro-compounds, (P.), B., 919.

Henne, A. L., and Leicester, H. M., natural and synthetic rubber. XVI. Structure of polystyrene, A., 1497.

Henne, A. L., McNary, R. R., and Gen. Meters halo[geno]-fluoro-Corp., derivative of aliphatic hydrocarbons, (P.), B., 632. Antimony trifluoride, (P.), B., 1039.

Henne, A. L., Shepard, A. F., and Renoll, M. W., natural and synthetic rubber. XV. Oxygen in rubber, B., 244.

See also Henne, A. L.

Midland Electric Coal Corporation. See Bixby, K. R.

Midland Steel Products Co., and Riemenschneider, E., welding, (P.), B., 553.

Miège, E., toxicity of sorgums, B., 393. [Acclimatisation] trials with Aleurites [species] in Morocco, B., 515. Influence of soil character on composition and baking value of wheat, B., 1012.

Miehle Printing Press & Manufacturing Co., photographically producing printing plates, (P.), B., 525. photographically colour-

Mickeley, A., action of acid on vegetabletanned leather, B., 70.

Mierdel, G., and Seeliger, R., physical basis of electrical gas purification, B.,

Miescher, E., band spectra of boron and aluminium halides, A., 1047.

See also Wieland, K.

Miescher, G., Almasy, F., and Kläui, K., detection of 1:2-benzpyrene with the fluorescence spectrograph, A., 1499. Miesowicz, M. Sce Jezewski, M. Mietzsch, F. See I. G. Farbenind., and

Mauss, H.

Migai, K. V. See Schol-Engberts, L. S. Migal, P. K., mechanism of displacement adsorption of gases and vapours, A., 26. Migeon, G. See Longchambon, H.

Migeotte, M. V., and Barker, E. F., fundamental absorption bands of the douteroammonias, A., 1318.

See also Barker, E. F. Migliardi, C. Seo Angeletti, A. Mignon, S. Seo Lévy, Max. Migray, E. See Pozna, F.

Migrdichian, V., and Amer. Cyanamid Co., disinfectant for seeds, (P.), B., 468.

Mihaéloff, S., rapid determination of carbon dioxide and detection of carbon monoxide in air by means of a simple apparatus, B., 396. Rôle of green vegetables in spreading pathogenic plant and animal bacteria, B., 814.

Miholić, S., Daruvar thermal spring, A., 48. Analysis of thermal spring at Lipik, A., 699. Heavy metals in mineral waters. II., A., 816.
Mihul, C. See Ionescu, T. V.

Mijnhardt, H. T., assay of materials containing essential oils, B., 715.

Mika, J., calculation of mean error in conductometric titration, A., 1351.

Mikaéloff, S., urinary ammonia, A., 1140. Mikei, I. J., "chloropal" nontronite ferrosilicates of Satschkovie Chutory, A., 586. Characterisation of nontronite ferrisilicates; Marinsk nontronites, A., 817.

Mikeladze, A. S. See Berg, P. P. Mikeska, L. A., chemical structure of

lubricating oils, B., 1077.
Mikeska, V. J., and Bogert, M. T., synthesis of phenylated benzoxazoles and [their] derivatives, A., 214. Preparation and tinctorial properties of benzoxazole dyes, A., 347.
Farinacci, N. T., and Bogert, M. T.,

allotropic forms of diphenyl sulphone and determination of their transition point, A., 1497.

Miklaschevskaja, V., determination of phenol and cresols in presence of each other, A., 1281.

Mikula, A., food for animals, (P.), B., 428.

Mikuleczky, E. See Csipkay, K. von. Mikuleczky, F. See Csipkay, K. von. Mikulinski, A. S., and Rubinstein, R. N.,

rate of absorption of water by magnesium sulphate, A., 1074.

Mikumo, J., soap solutions. XI. Reactions between the systems: stearic acidsodium oleate and oleic acid-sodium stearate, A., 822.
Milas, N. A., and Sussman, S., hydroxyl-

ation of the double linking, A., 1091.

Milazzo, G., absorption spectrum of alkyl iodides in extreme quartz ultra-violet. I. Experimental, A., 1048.

and Scheibe, G., absorption spectra of chromium, molybdenum, and tungsten hexacarbonyls in vapour and dissolved states, A., 544.

See also Henrici, A.

Milbauer, J., sedimentometer, A., 181. Solubility of sulphur dioxide in sulphuric acid, A., 421. Conjugated catalytic phenomena; [catalysis by binary and ternary mixtures], A., 434. Influence of constitution of oxidised substances on activity of catalysts for oxidation by concentrated sulphuric acid, and influence of temperature on the catalysts, A., 434. Carbon oxysulphide, A., 686. Titanium-white, B., 702.

and Doškař, J., preparation of calcium chromate in the wet way, A., 301. Reactions in concentrated sulphuric acid. I. Carbon disulphide, A., 942.

Milbourne, S. M., Franks, F., and Walker, Ltd., C. & W., atomisers for liquids, P.), B., 81.

Milch-Industrie Akt.-Ges., prolonging stability of yoghurt or yoghurt-like milk products, (P.), B., 474. Mildwurf, A. See Bruman, F.

Miles, F. D., formation and constitution of crystals of lead salts containing water-soluble colloid, A., 154. See also Keggin, J. F.

Miles, F. T., and Menzies, A. W. C., vapour pressure of deuterium water from 20° to 230°, A., 1059.

Shearman, R. W., and Menzies, A. W. C., equilibria in salt systems with douterium water, A., 1063.

Miles, L. E., copper fungicides and other new materials as peach sprays, B., 117.

Miley, H. A., and Evans, U. R., films responsible for the colours on molten lead, tin, bismuth, and zinc, B., 549.

Milham, E. G., preparation of [paper] coating colour mixtures, B., 830. Bleaching of old paper pulp, B., 1200.

Milhand, F. See Randoin, L.

Milhorat, A. T., and Toseani, V., metabolism of glycollic acid in progressive muscular dystrophy, A., 1017.

Miliancznk, B., magnetic dipole radiation, A., 404. Dispersion of light in the region of magnetic dipole lines, A., 404. Miliotis, J., preparation of isovalerylsali-

cylic acid, A., 203.

Milk Processes, Inc. See Wendt, H. D. Milk Products Sub-Committee, milk pro-IV. Determination of water. total solids, and fat in dried milk, B., 471.

Millar, C. F. P., printing inks, (P.), B., 608. Millar, H. C., and Smith, F. B., significance of carbon dioxide in making phosphorus available in soils, B., 34.

See also Smith, F. B.

Millar, J. H., and Guinness Son & Co., A., apparatus for centrifugal filtration and separation of liquids, (P.), B., 912. lector for liquid for use in centrifugal apparatus, (P.), B., 912. Preparation of soluble food extract from brewers' yeast, (P.), B., 953. Soluble food extracts, (P.), B., 954.
Millar, R. W. See Bataafsche Petroleum

Maats., and Shell Development Co.

Millar, W. J., Howard, J. C., and Electric Resistance Furnace Co., heat-treatment of metals, (P.), B., 746.

See also Electric Resistance Furnace Co. Millard, A. H., Strophanthus dichotomus, D.C., A., 1166.

Miller, A. See Schneider, Andreas. Miller, A. L. See Churchill, H. V. Miller, A. M. See Curtis, H. A.

Miller, A. P., and Washburn, T. S., slag control for recarburised rail steel, B., 410.

Miller, B., progress in controlled drying of rayon skein, B., 1146.

Miller, B. E. M. See Brit. Celanese.

Miller, B. F., and Van Slyke, D. D., direct micro-titration method for blood-sugar, A., 1166. See also Van Slyke, D. D.

Miller, C. A., Smith, D. A., and Valvoline Oil Co., solid lubricating compound, (P.), B., 358.

Miller, C. C., and Traves, F., quantitative separation of lithium, with reference to its determination in insoluble silicates, A., 1352. Determination of sodium and potassium in insoluble silicates, A., 1352.

See also Payne, E. H.

Miller, C. D., nutritive value of opihi (Helcioniscus exaratus and II. argenlatus). II. Hæmoglobin regeneration in anemie rats fed opihi, B., 42.

and Robbins, R. C., nutritive value of tho protein of Cajanus indicus, B., 1232

Miller, C. O., metal salts of acetylsalicylic acid, (P.), B., 443.

and Siehrs, A. E., properties and reactions of carbohydrates in liquid ammonia, A., 55.

See also Roberts, R. G.

Miller, C. S. See Thornton, H. R.

Miller, D. K., and Rhoads, C. P., reticulocyte response in guinea-pigs following oral administration of certain antianæmie substances, A., 745.

Miller, E., Munch, J. C., Crossley, F. S., and Hartung, W. H., thiobarbiturates. II., A., 1125.

Miller, E. G., jun. See Cockrill, J. R. Miller, E. J., Goodwin, H. L., and Miller, E. M., wheat flour, (P.), B., 1126.

Miller, E. M. See Miller, E. J.
Miller, E. P. See Lark-Horovitz, K.
Miller, E. V., distribution of acetaldehyde

and alcohol in the apple fruit, A., 1433.

and Dowd, O. J., effect of carbon dioxide on the carbohydrates and acidity of fruits and vegetables in storage, B., 1124.

Miller, F. See Parratt, L. G.

Miller, F. H. See Ralston, O. C. Miller, F. L. See Standard Oil Develop-

ment Co. Miller, G. C., and Kelp-Ol Labs., applying coating to a medical preparation, (P.), B., 813. Coating for medical compound, (P.), B., 813.

Miller, H. F., and Bachman, G. B., higher benzenoid hydrocarbons. II. Isomeric III. bromofluorenones. Isomeric bromo-9-fluorenols and bromofluorenes, A., 335.

Miller, H. S., source of loss of ammonia in Kjeldahl distillations, A., 303.

Miller, J. B. See Kinzie, C. J.

Miller, J. C., occurrence, preparation, and utilisation of natural carbon dioxide, B., 1091.

Miller, J. I. See Heyroth, A. H.

Miller, J. L., nitric acid test for stainless steels, B., 457.

Miller, K. See Batchelder, E. L.

Miller, L. B., effect of insulation on silica refractories of an open-hearth steelfurnace roof, B., 102.

Miller, L. C. See Meyer, R. K.

Miller, L. L., and Johnson, J. R., structure of Wedckind's ketenium compounds, A., 1368.

Miller, L. P., Guthrie, J. D., and Denny, F. E., induced changes in respiration rates and time relations in the changes in internal factors, A., 1034.

and Denny, F. E., relation between quantity of ethylene chlorohydrin absorbed and growth response in treatments for shortening the rest period of potato tubers, B., 898.

Miller, M. See Frey, A., and Niklas, H. Miller, M. A. See Bartell, F. E.

Miller, M. J., and Semet-Solvay Eng. Corp., ammonia recovery [from hot coal-distillation gases], (P.), B., 968.

Miller, $Mary\ L$. See La Mer, $V.\ K.$ Miller, Maurice L. See Koller, M. M.

Miller, M. W., and Bearse, G. E., vitamin-Dcontent and hemoglobin-building properties of dehydrated kelp for chicks, A., 1409.

See also Carver, J. S.

Miller, O., dimethylcyclohexanes, A., 61.

See also Lecomte, J.
Miller, P. W., control of walnut blight in Oregon, B., 247.

Miller, R. A., glass in building, B., 102. Miller, Robert C., p_{Π} concentration and temperature of surface waters of several

seas, A., 183. Miller, Russell C., and Ziegler, P. T.,

progress of the distribution of salt in ham during the curing process, B., 568. Miller, R. D., and Foster, E. S., jun., anisotropy in atomic vibrations of zinc crystals. III. (0002) and (1010) re-

flexions of Mo Ka X-rays from powdered zinc, A., 1325. Miller, R. F., and Adams, Roger, multi-

planar isomerism of cyclohexanes, A., 831. Miller, R. L., control of citrus rust mite with sulphur, B., 516.

See also Hill, S. B., jun.

Miller, R. R. See Davis, R. O. E. Miller, S. P. See Barrett Co.

Miller, T. H., and De Laval Separator Co., discs for centrifugal-separator bowls, (P.), B., 577. See also Lawrence, IV. S.

Miller, V. See Gen. Electric Co. Miller, V. S. See Baldwin, C. C.

Miller, W. B., and Oxweld Acetylene Co., [phosphor-copper] brazing alloy, (P.), B., 505. Welding rod, (P.), B., 604. Coated [iron] welding electrode, (P.), B., 647. Coated [ferrous] welding rod, (P.), B., 1046.

See also Wissler, W. A. Miller, W. C., low-temperature blood meals as a source of essential amino-acids for nutritive purposes, A., 885. Hormones and pregnancy, A., 1427.

Miller, W. L., Wildier's bios, A., 522. Miller, W. S. See Calico Printers Assoc.

Miller, W. T., jun., and Bigelow, L. A., preparation and determination of elementary fluorine, A., 1350.

Miller & Co., Inc., M. B., extraction of mineral oils, (P.), B., 731.

Miller-Shabanova, M. V., nitrogen meta-

bolism in infants, A., 754. Millett, H. C., Lurgi process for complete

gasification of coal with oxygen under

pressure, B., 1186.
and Cobb, J. W., scaling of mild steel in sulphur-free and sulphur-containing furnace atmospheres, B., 22.

Milletti, M., cytological modifications of the hepatic cell through variation of the oxygen and carbon dioxide contents of the respired air, A., 756.

Millidge, A. F. See Hibbit, D. C., and Linstead, R. P.

Milligan, J., chemical effect of water on drying-oil films, B., 379.

Milligan, J. C. Sec Arnot, F. L.

Milligan, W.O. See Weiser, H.B.
Millikan, G. A., kinetics of musclehæmoglobin, A., 1012. Photo-electric methods of measuring the velocity of rapid reactions. III. Portable microapparatus applicable to an extended range of reactions, A., 1224.

See also Hopkins, (Sir) F. G., and Roughton, F. J. W.

Millikan, R. A., cosmic-ray effects, A., 403. Millis, W. T., and Lowry, E. F., radiation characteristics of oxido cathodes, A., 129. Millman, J. See Manning, M. F.

Millman, P. M., spectra of meteors, A., 447. Millman, S., and Fox, M., nuclear spins and magnetic moments of 85Rb and

⁸⁷Rb, A., 1168.

Fox, M., and Rabi, I. I., spin and magnetic moment of the potassium K³⁹ nucleus, A., 403. See also Manley, J. H.

Millner, T. Sec Gen. Electric Co.

Mills, A. P., mildew prevention and repainting mildewed surfaces, B., 499. Mills, G. F. See McBain, J. W.

Mills, H., lithopone and other zinc sulphide pigments, B., 205, 559.
Mills, H. P., and Bakelite Corp., abrasive

or polishing tools, (P.), B., 740.

Mills, H. R. See Hankins, G. A.

Mills, J. E., [quantitative] spectrum analysis using emission spectra, A., 1355. Mills, K. O. See Curtis, W. C.

Mills, L. D., Crowe, T. B., Lennox, L. W. and Merrill Co., cyanide process and apparatus, (P.), B., 833. See also Merrill Co.

Mills, L. E. See Dow Chem. Co.
Mills, R. V. A., and Continental Oil Co.,
treatment of oil and gas wells, (P.),

Mills, W. H., and Clark, R. E. D., stereochemistry of new complex thio-salts of mercury, cadmium, and zinc, A., 492.

and Keats, G. H., configurations of Δ^2 -tetrahydro- and hexahydro-terephthalic acids, A., 71.

See also Maitland, P.

Mills, Ltd., W., and Paige, J. F., furnace tuyères, (P.), B., 47.

Milne, A. See Dawson, D. J.
Milner, H. W. See Spoehr, H. A.
Milner, R. T., and Sherman, M. S., organic micro-analysis. I. Nitrogen by Dumas'

method, A., 1397.

Milone, M., X-ray study of the structure of some dibenzyl derivatives, A., 927.

Milova, E. L. See Palladina, O. K. Milovidov, P. F., nuclear staining of myxobacteria and other species, A., 525. Thymonucleic acid content of hyperchromatic somatic cell nuclei, A., 1569.

Milovidova, M. K. See Schirokov, N. V. Milstead, K. L. See Fry, H. S. Milsum, J. N., derris cultivation in Perak,

B., 1061.

Milton, R., Mendel and Goldscheider's method for determining lactic acid in blood, A., 496.

Milton, W. E. J., comparison of composition of hill swards under controlled and free grazing conditions, B., 473.

Miltschitzky, G. See Ruff, O. Milum, V. G. See Lynn, E. G.

Mima, E. Sce Epstein, S.

Mimrikova, V. N. See Gaponenkov, T. K. Minaev, V. I., rational utilisation of bleaching properties of sodium hypochlorite, B., 57.

and Frolov, S. S., stenosation of viscose silk by treatment with formaldehyde and other aldehydes, B., 56. Chlorination methods of isolating cellulose,

B., 93. and Kiselnikov, V. N., hyposulphite method of azo-dye analysis, B., 55.

and Moriganov, P. V., optimum conditions of adsorption of leuco-indigo on cotton fibre, B., 57.

Minagawa, T., amylosynthease. XXV. Zymogen of yeast amylosynthease. XXVI. Zymogen of higher plant amylodistribution in synthease; plants which accumulate starch. XXVII. Amylosynthease of higher plants which accumulate starch. XXVIII. Reaction velocity of amylosynthease, A., 1150.

Minami, E., selenium content of European and Japanese slates, A., 816. Rare earth content of European and Japanese

argillite, A., 1087.

Minard, G. See Fromageot, C.

Minatoya, S., Aoe, I., and Nagai, I., determination of true free sulphur in vulcanised rubber; modification of the thiocyanate method, B., 112.

Minder, W., structure of some hydrates of

sodium borate, A., 783.

Mindlin, S. S., and Kuzmina, L. I., nitrogen oxides in nitration mixtures, and their effect on properties of cellulose nitrate, B., 312.

Mindlina, D. S. See Schirokov, N. V. Mine, K., organic magnesium compounds. II. Reactions of aryl p-toluenesulphonates with Grignard reagents, A., 598.

Mine Safety Appliances Co. See Gilliland, E. W., and Jacobson, M. G.

Mine & Smelter Supply Co. See Wales, J, P.Miner, C. G., and Baird, D., production of metallic aluminium or aluminium

chloride and certain metals as byproducts, (P.), B., 416. Production of aluminium chloride and certain metals as by-products, (P.), B., 1206.

Miner, C. S., and Nat. Vermieulite Products Corp., expanded vermiculite, (P.), B., 145.

Sec also Nielsen, E. R.

Minerals Separation, Ltd. See Tucker,

Minerals Separation North American Corporation. See Keller, C. H., and Trotter, IV.

Minerva Société Anonyme, treatment of schappe bands of viscose artificial silk during its process through washing, sulphur-removing, bleaching, reviving, and

dyeing baths, etc., (P.), B., 1148.

Mines Domaniales de Potasse d'Alsace.
See Forret-Jaggi, R. C.

Minett, F. C., differentiation of Streptococcus pyogenes from man and animals by the sorbitol-trehalose test, A., 114.

Minger, F. R. See Dow Chem. Co.

Mingoia, Q., preparation of quinine aurothiosulphate, A., 618.

Minibeck, H., and Neumann, N., determination of hippuric acid in blood, A.,

Minich, V. E. See Amer. Foundry Equipment Co.

Mining & Industrial Works, water-resistant bodies consisting mainly of calcium hydroxide, (P.), B., 494. Purification of water, (P.), B., 622. Carrying out and regulation of reactions of dissolved substances with solid bodies, (P.), B., 674. Water-resistant calcium sulphite in lumps, (P.), B., 1037.

Minker-Bogdanova, E. T., Povorinskaja, S. A., and Povorinski, J. A., inorganic composition of blood serum in schizo-

phrenics, A., 627.

Minkevitisch, I. E., and Ragosin, I. I., process of milk coagulation for titre determination of Escherichia coli in water, B.,

Minkin, B. See Skirstimonski, A. O. Minkowski, R., intensity distribution of red cadmium lines excited by electron collisions in molecular rays, A., 538.

Minne, A. See Désirant, M. Minne, R. See Adant, M.

Minneapolis-Honeywell Regulator Co. See Mattern, R. P.

Minnesota Mining & Manufacturing Co. See Okie, F. G. Minnhaar, T. C., elimination of sodium

formaldehydesulphoxylate by the digestive secretions, A., 513. Miunis, C. M. See Sloane, R. H.

Minor, H. R., and Liquid Carbonic Corp., sponge rubber from latex or rubber solutions, (P.), B., 32.

and Industrial Process Corp., securing adhesion of [soft] rubber to metal [iron], (P.), B., 754. Sponge rubber, (P.), B., 1057.
Minor, J. E. See Klein, F. S.

Minor, L. E., beeswax composition, (P.), B., 1165.

Minsk, L. M. See Eastman Kodak Co. Minton, C. R., Phillip, W. B., and Ells, B. R., filtering product, (P.), B., 223.

Mintz, I. B., Gavrilenko, E. S., Rabinovitsch, O. B., and Benina, S. S., acidimetric determination of water-soluble and total phosphoric acid in superphosphate, B., 368.

Minz, B., liberation from the spinal cord of a substance similar to acetylcholine [during electrical stimulation], A., 1286. Miplas, L_{\cdot} , and Karfunkel, V_{\cdot} , stability of

cellulose xanthate solutions, B., 829. Mirande, M., sterols in leaves and flowers of

the lily, A., 533.

Mirchandani, T. J., report on agricultural chemistry ["Usar soils"], B., 755.

Mirer, E., determination of clouding substances in vegetable oils, B., 799.

Mirer, E.A. See Liutenberg, A.I.Mirimanoff, A. See Chodat, F.

Mirlis, D., and Rehbinder, P., kinetics of selective wetting and surface reactions on metals in presence of electrolytes. 1., A., 1335.

Mirlis, D. I., and Deribas, D. A., synthetic tanning materials from wood, B., 1009. Synthetic tannins from carbohydrates, B., 1009.

Mironescu, A., and Nicolescu, I. V., azodyes. II., A., 979.

Mironoff, J., oxidimetric determination of oximes of nickel and copper, A., 444.

Mironoff, S. A., hardening of cement mortars, B., 61.

Mirsky, A. E., proteins of muscle in rigor, A., 623. Visual cycle and protein denaturation, A., 624. Thiol and disulphide groups of proteins. IV. Thiol groups of proteins of muscle, A., 624.

Mirsky, A. E., and Anson, M. L., reducing groups of proteins, A., 352. Thiol and disulphide groups of proteins. II. Relation between number of SII and S·S groups and quantity of insoluble protein in denaturation and in reversal of denaturation. III. Thiol groups of native proteins: hæmoglobin and the proteins of the crystalline lens, A., 352.

and Pauling, L., structure of native, denatured, and coagulated proteins,

A., 1132.

Mirsky, I. A., source of the blood-acctone resulting from administration of the kctogenic principle of the anterior pituitary gland, A., 1426. See also Freed, S. C., and Soskin, S.

Mirumian, A. See Veller, S. M.

Misch, L., crystal structure of beryllium alloys, A., 419.

Mischkevitsch, R. See Veinberg, G. J. Mischkis, Maria S. Seo Mischkis, Meer S. Mischkis, Meer S., and Mischkis, Maria S., effect of boiler-makers' work on composition and properties of their blood, À., 1530.

Mischtschenko, I. P., and Fomenko, M. M., effect of Röntgen rays on appearance of complement-fixing bodies

in the blood, A., 94.

Mischtschenko, K. P., heat of solvation of some univalent ions in water, methyl

and ethyl alcohol, A., 1205.

and Pronina, M. Z., heat of imbibition of cellulose in water and in certain technical organic solvents at 25°, A., 287. Thermochemistry of aqueous solutions of electrolytes. I. Heat of solution, and specific heat of aqueous potassium sulphate, A., 937.

Misener, A. D., magnetic effects and current-sensitivity of superconducting

films, A., 556.

Smith, H. Grayson, and Wilhelm, J. O., effect of magnetic fields on super-conductivity of thin films of tin, A., 277. and Wilhelm, J. O., superconductivity of

thin metallic films, A., 277. Mishima, T. See Nagaoka, Hantaro.

Mishin, A. D., chemical plant for utilising vapours and gases from the Schwartz wood-carbonisation kilns by the Savinuikh method, B., 530. Mishkind, D. I. See Kleiner, I. S.

Misra, R. N., and Dutt, S., dyes derived from acetylenedicarboxylic acid, A., 849. Misutsch, K. G., secondary reactions in reduction of aromatic nitro-compounds; rôle of ferrous salts in reduction process. A., 601.

Mitani, M., effect of sulphur on weight and adrenaline content of the adrenal capsule and on vasoconstrictor action of bloodscrum, A., 515. Lipæmia caused by absorption of the products of intestinal putrefaction of proteins and effects of the various hormones on this condition. III. Effect of extirpation of adrenals. IV. Effect of insulin and of insulin plus glucose, A., 642.

Mitchel, R. H. See Randolph, D. W. Mitchell, A. C. G., Murphy, E. J., and Langer, L. M., scattering of slow neutrons, A., 541.

Murphy, E. J., and Whitaker, M. D., selective scattering of slow neutrons, A., 541. Scattering of slow neutrons. II., A., 1044.

See also Brown, M. V., Lipson, H. C., and Whitaker, M. D.

Mitchell, C. A., survey of methods of analysing tannins, B., 706.

Mitchell, C. R., and Yorston, F. H., rôle of base in sulphite pulping, B., 490. See also English, H.

Mitchell, D. P., absorption of neutrons detected by boron and lithium, A., 541. Dunning, J. R., Segrè, E., and Pegram, G. B., absorption and detection of

slow neutrons, A., 6. and Powers, P. N., Bragg reflexion of

slow neutrons, A., 1314. Rasetti, F., Fink, G. A., and Pegram, G. B., photo-neutrons, A., 1044. See also Fink, G. A., and Rasetti, F.

Mitchell, D. R. See McCabe, L. C.
Mitchell, D. R. (Oxford), and Plant,
S. G. P., Friedel-Crafts reaction in the
carbazole series. II., A., 1389.

Mitchell, E. R., and Kendall, R., separation of oil from fuller's earth or similar

material, (P.), B., 358. Mitchell, H. A., Cawthon, J. L., jun., and Bonney-Floyd Co., pearlitic cast iron, (P.), B., 152.

Mitchell, H. H., substitution of dithioethylamine (cystineamine) for cystine in diet of the white rat, A., 102. Food

value of ethyl alcohol, A., 513.
See also Fairbanks, B. W., Hamilton,
T. S., and Watkins, W. E.

Mitchell, J. A. M. W. See Imperial Chem. Industries.

Mitchell, J. G., and Lee, A. R., viscosity of road tars. I. and II., B., 50, 726.

Mitchell, J. S., surface phenomena; films, A., 1458.

Mitchell, J. W. (Oxford). See Hinshel-wood, C. N.

Mitchell, James W. See Brown, T. T. Mitchell, K., surface photo-electric effect in

metals. II., A., 665. Mitchell, L. A., drying plant [for pottery],

(P.), B., 175. Mitchell, M. L. See Kuehel, C. C. Mitchell, P. H. See Bowman, R. O.

Mitchell, R. L. See Ritter, G. J.

Mitchell, R. L. (Aberdeen), spectrographic analysis of soils by the Lundegardh method, B., 1115. Base status of Scottish soils. I. Effects of lime on five typical soils from north-east Scotland, B., 1222.

and Robertson, I. M., effect of aluminium on the flame spectra of the alkaline earths; determination of aluminium, A., 1353.

Mitchell, R. W., metal-cleaning technology, B., 24.

Mitchell, S., and Carson, S. C., action of nitrosyl chloride on n-hexane in presence of light, A., 1090.

and Gordon, R. R., rotatory dispersion and circular dichroism of 2:2-dinitrocamphane in the ultra-violet, A., 925.

Mitchell, T. A., and Hughes-Mitchell Processes, chloridising ore metal sulphides, (P.), B., 102. Treatment of ore materials, (P.), B., 495. Chloridising of ore materials, (P.), B., 495. Ore-treatment apparatus, (P.), B., 698. Treatment of [zinc] sulphide ores, (P.), B., 1212. Sessions, R. L., and Hughes-Mitchell

Processes, zinc and sodium sulphides,

(P.), B., 1151.
Mitchell, W. J. See Speirs, J.
Mitchell, W. M., rheumatic disease (osteo-

arthritic and allied conditions) in the horse, A., 232.

Mitchell, Winfred M., Barthélemy, H. L., and Tubize Chatillon Corp., [delustring] treatment of [cellulose acetate rayon] fabrics and composition therefor, (P.),

Mitford, J. B. See Pilkington Bros. Mitford, W. B., Lander, C. H., Brocklebank, E. W., and Dilley, A. E., cooling of coke, etc., (P.), B., 485.

See also Brocklebank, E. W., and Strevens, J. L.

Mithoff, R. C. See Standard Oil Co. of California.

Mitinski, A., elastic modulus of cast irons, B., 1209.

Mitkevitseh, A. V., separation of magnetic viscosity and eddy-current lag, A., 17. Magnetic viscosity at different points of the magnetisation curve, 1328.

Mitlehner, K., electrically heated glass press

furnace, B., 543.
Mitolo, M., oxidation-reduction processes in experimental deficiency. I. Alteration of capacity of tissues to reduce 2:6dichlorophenol-indophenol in avian beriveri, A., 255. Presence and distribution of some reducing substances in brain tissue, A., 749. Oxidation-reduction phenomena and functional activity of nervous tissue, A., 1294. Reducing substance in human cerebrospinal fluid, A., 1405. Inter-relationship of vitamins A., 1428.

Mitome, N. See Sobue, II.

Mitra, B. N. See Linton, R. W.

Mitra, H. K., manufacture of refractories from Indian magnesite, B., 370.

Mitra, N. G. See Bhatnagar, S. S.

Mitra, R. See Mukherjee, J. N.
Mitra, S. M., polarised fluorescence of organic compounds, A., 11. Raman spectra of sulphates at different concentrations, A., 547. Raman spectrum of piperidine, A., 1319.
Mitrofanov, S. I., and Eliseev, I. S.,

flotation of pyrites tailings from Karabash concentration plant, B.,

and Ermolaev, N. V., copper from magnetic-separation tailings of Mt. Vuiso-

kaja (Urals) ore, B., 197. and Kropanev, S. I., selective flotation of copper-zinc ore from the deposits "October 15th Anniversary" (Urals), B., 324.

Mitrović, M., distillation of lignite from the Alexinatz pit, B., 625.

Mitsche, R., action of carbide etching reagents, B., 323.

Mitscherlich, E. A., action of frost on soils, B., 513. Suitability of Mitscherlich pot-culture tests as a standard for the utility of other methods of soil examination, B., 898. Determination of plant-assimilable potassium and phosphoric acid in soil, B., 1170.

and Beutelspacher, H., boring tool for volumetric removal of soil samples

from any depth, B., 897.

and Sauerlandt, W., nitrateammoniacal nitrogen in soils and the plant-physiologically active nitrogen b," B., 384.

Mitscherling, W. O., and Neon Research of

Connecticut, Inc., treatment of [aliphatic] hydrocarbons, (P.), B., 584.

Mitsubishi Denki Kabushiki Kaisha, magnet made of metal oxide, (P.), B., 606.

See also Kato, Yogoro.

catalytic reductionMitsui, K., of aromatic carboxylic acid esters under high pressure and temperature, A., 436.

See also Ogata, A.

Mitsuki, C. See Yoshida, U. Mitsuwa, T. See Kotake, M.

Mittasch, A., autocatalysis in chemistry and biology, A., 1346.

Mitter, P. C., and Banerji, D. K., fused rings. I., A., 469.

and De, S., condensation of succinic anhydride with phenols and phenolic ethers; synthesis of derivatives of tetrahydronaphthalene, A., 720.

and Dutt, P. N., condensation of 3- and 4-nitrophthalic anhydride with phenol and anisole, A., 984.

and Maitra, S. S., isoflavone series, A., 1118.

and Sen-Gupta, (Miss) T., anthraquinone series; attempts to synthesise anthraquinonecarboxylic acids of the morindone type, A., 1379.

Mittra, R. N. See Dhar, N. R.

Mitzengendler, S. P. See Voroseheov, N. N., jun.

Miura, \hat{I} , distillation of wood and utilisation of wood waste in Japan, B., 235. Utilisation of essential oils from forest trees in Japan, B., 252.

Miura, K. See Ishizaka, N. Miwa, T., baicalinase, an enzyme which hydrolyses flavone glycuronides. III., A., 1297.

See also Usui, R. Mixing Equipment Co., Inc. See Craddock, F. L.

Miyaguti, M. See Sakurada, I.

Miyahara, T., biochemistry of allantoin. I. Effect of leucolysis on allantoin excretion. II. Amounts of allantoin in urine of various animals. III. Effect of thyroxine ingestion on allantoin excretion, A., 99.

Miyajima, S., and Takei, S., grayanotoxins, active constituents of Leucothoe grayana.

II., A., 995.

Miyake, K., and Watanabe, M., 6-hydroxycamphor, A., 206. See also Ochiai, E.

Miyama, K., enzymes in rabbit sarcoma, A., 364.

Miyama, R. See Nishida, Kitsuji. Miyamori, S., Embden's cholesterol determination, A., 536.

Miyamoto, S., preparation of colloid solutions by the silent electric discharge. IV., A., 286. Rate of diffusion through membranes, A., 424.

Miyao, S., metabolism of malignant tumour. I. Influence of amino-acids on the tissue respiration of tumour, A., 626.

Miyasaka, M. See Asahina, Y.

Miyashita, K., properties of cold-blast char-

coal pig iron, B., 195.

Miyata, A., new type of electrolytic condenser with a thick anodic film, B., 555. Anodic oxidation of aluminium and its industrial application, B.,

and Ebihara, I., electrolytic method for colouring the oxide films on aluminium, B., 552.

Mizuno, Y., renal activity. VIII. Effect of xanthine and histidine fractions isolated from various organs of cows. IX. Effect of endocrine preparations on renal activity, A., 106. Mizushima, S., and Morino, Y., Raman effect and dipole moment in relation to free rotation. V. Intramolecular potential of ethane derivatives, A., 1180.

Morino, Y., and Kozima, K., Raman effect and dipole moment in relation to free rotation. IV. Molecular structure of acetylene tetrachloride, A., 924.

Morino, Y., and Noziri, S., Raman effect and dipole moment in relation to free rotation. III. Raman spectra of solid ethylene halides, A., 776. Morino, Y., and Okamoto, G., Raman

spectrum of deuteroethanol, A., 1319.

Mizuta, M., separation and utilisation of o- and p-nitrotoluene from mononitrotoluene prepared from the gasoline fraction of Syukkôkô crude. I. Separation of o- and p-nitrotoluene. Preparation of toluidine from nitro-toluene. III, Preparation of safranine and magenta, B., 138, 181, 361. Separation and identification of the aromatic hydrocarbons contained in the xylene fraction of Syukkôkô crude. I., B., 1077.

and Tada, C., refining of lubricating oils by hydrogenation, B., 356.

Mizuta, N., and Matsuura, T., existence in blood and urine of substances promoting liver function, I., A., 1146.

Mizutani, K., effect of quinine on tissue respiration: relation between quinine and various hormones in this respect. I. Insulin or adrenaline. II. Genital glands, A., 517.

Mladenov, I. See Tschilov, K.

Mladenović, M. M., and Berkeš, I., elemic acid from elemi resin. VIII. \(\beta\)-Elemonic acid, A., 340.

Mlodziejewski, A. B., topological properties of phase diagrams, A., 936.

Sec also Žacharova, M. I. Mnookin, N. M. See Patrick, J. C. Mo, W. \dot{S} . See Tao, L. O.

Moa Bay Co. See Lindemuth, L. B. Moberg, E, G., and Fleming, R. H., distribution of nitrogen compounds in the sea near Southern California, A., 48.

See also Harding, M. W., and Revelle, R. Mobius, H. See Nehring, K.

Mobley, R. L., battery-type stand assembly for distilling equipment, A., 1086. See also Owen, W. L.

Mobley, W. R., separation of liquids, (P.), B., 1073.

Mochalov, K. See Jerofejev, B. V. Mochida, T., terpenes and camphors. I. Isomerisation of a-pinene by activated charcoal, A., 607.

Mochnatsch, V. O. See Favorski, A. E. Mocoroa, F., activation of pancreatic

trypsin, A., 1420.

Model, A. See Edson, N. L.

Modern Panels, Inc. See Shoals, F. H. Modin, D., how can the nutrient value of straw be increased? B., 393.

Modolell, A. See Jimeno, E.

Möbius, K., and Wedekind, E., contact poisons for forest tree pests. III. and

IV., B., 387, 613.

Möbius, W. Sce Pfeiffer, G.

Moebus, H. See Felix, K.

Möhle, W. See Meyerhof, O.

Moehlman, R. S., dykes and veins of the Alamo gold district, Lower California, A., 184. Quartz paramorphs after tridymite and cristobalite, A., 308. Amygdaloidal dykes, A., 1088. Ore deposition south of Ouray, Colorado. I. and II., A., 1484.

Möhringer, K., influence of soil reaction and of phosphoric acid on growth of vines, B., 164.

Møller, A., enriching of sulphate pulp in a-cellulose, B., 539.

Møller, C., radiative collision between fast charged particles, A., 265. Positron emission accompanying β -ray activity, A., 400.

See also Bloch, F.

Möller, E. See under Wülfing, J. A. Möller, E. F. See Wagner-Jauregg, T. Möller, F. See Stoermer, R.

Möller, G., and Peterson, P., preservation of eggs, meat, fish, vegetables, or other victuals by means of carbonic acid or another indifferent gas, (P.), B., 74.

Möller, H., and Trömel, G., crystal orientation in tooth-enamel, A., 1011.

Moller, K. O., determination of average lethal dose in the biological assay digitalis by the frog method, A., 892. Møller, M., Raschig's hydrazine synthesis,

A., 575.

Möller, R., high-capacity producer for gas production from brown-coal briquettes, B., 1187.

Moelwyn-Hughes, E. A., absolute rate of reactions in condensed phases, A., 684. Theory of electrokinetic effects in solution; reactions between ions, A., 1209. Application of the chain theory of chemical change to certain enzyme reactions, A., 1296. Kinetics of certain bimolecular reactions in solution, A., 1469.

and Sherman, A., kinetic consequences of complex formation in solution, A., 296. Mönch, G., thermo-electric power, Peltier heat, and photo-potential of the element copper-cuprous oxide-copper, A., 148. Volta potential, work function, and thermo-potential. I. and II., A., 554. Dependence of Volta potential on state of strain of a metal surface. VI., A., 554. Fundamentals of vacuum technique for chemical laboratories, A., 815. Thermo-potential of the element, metalsemi-conductor-metal. I. Various samples of cuprous oxide, A., 923. Peltier heat for the element copper-cuprous oxide-copper, A., 928.

Mönnig, H., testing low-temperature car-bonisation and coking properties of finely-ground coals, and their suitability for electrode carbon, B., 1137. See also Winter, H.

Mörath, E., determination of moisture in wood, B., 546.

Moerbeek, B. H., and Beest, A. C. van, naphthenes in fuel oils vary pour-point tests, B., 51.

Moerman, N. F. See Gerding, H., and Smits, A.

Moers, K. See Gen. Electric Co.

Möser, A., quenching test for refractories; simultaneous determination of the resistance to abrupt changes of temperature and to corrosion, B., 544.

Moffats, Ltd., and Smith, E. S., thermostatic temperature-controlling means, (P.), B., 576.

Moffett, E. C., and Amer. Cyanamid Co., case-hardened alloy steels, (P.), B., 280. Moffett, R. See Ungley, C. C.

Mogilevkina, L. N. See Rutovski, B. N.

Mohammad, N. See Hamid, A.

Mohanti, H. B. See Sen Gupta, M. M.

Mohiuddin, M. G., essential oil from rhizomes of Rheum emodi, Wall, B., 252. Mohler, F. L., reversal temperature and population of excited states in the exsium discharge, A., 769. Intensity distribution in the line emission spectrum of casium, A., 1310.

See also Taylor, L. S.

Mohler, H., "violet root" extract as

adulterant of wine, B., 712.

and Forster, H., determination of added water in cream, B., 1229. Comparison of methods for determination of added water in milk, B., 1229.

and Hämmerle, W., chromatographic and spectrophotometric detection of artificial colouring of wine, B., 40. Cherry water [kirschwasser]. III. Bouquet substance, B., 167. Detection of white wine in red wine, B., 614.

and Hartnagel, J., electrolytic determin-

ation of copper, A., 1479

and Pólya, J., [absorption] spectra of solutions of chemical warfare materials, A., 545.

Mohler, N. M., colour of smoky quartz, A., 7. Spectrophotometric study of smoky quartz, A., 958.

Mohlman, F. W., disposal of sewage solids,

Mohn, O. M., fuzz in newsprint production, B., 735.

Mohorčič, H., rôle of zinc sulphate in soil treatment, B., 562.

Mohr, C. B. O., and Pringle, G. E., collision forces between light nuclei, A., 772.

See also Fraser, R. G. J., and Massey,

Mohr, L. See Grube, G.

Mohr, U., relation between self-ignition properties and combustion in the engine of fuels containing anti-knock agents, B.,

Mohr, W., and Ahrens, H., body colour of butter and of artificial butter colours, B.,

Mohs, K., storage conditions for barley and malt, B., 390. Mohs, P. See Ruhkopf, H.

Moir, G. A., chlorine requirements of farm animals, with especial reference to the effect of chlorine on metabolism of the pig, A., 631.

Moisak, I. E., composition of nitrating acid for production of mono- and dinitrotoluene, B., 54. Products of nitration of centralite, B., 221. Lead trinitroresoreinolate as a capsular

detonator, B., 430. and Grigorev, N. V., influence of certain substances on separation velocity of nitroglycerin from spent acid, B., 221.

Moiseenko, G. See Goubarev, E. Moiseev, B. N., fibre board for use in hightension oil transformers, B., 405.

Moisik, M. R. See Bruk, A. S.

Moissejeva, M., theory of mitogenetic radiation. V. Yeast as detector for mitogenetic rays, A., 246.

Mojen, H. P. See Staudinger, H.

Moji, M., micro-organisms in manufacture of miso [fermented soya-bean paste]. I. and II., B., 712.

Moke, C. B., solubility of quartz in hydrofluosilicic acid, B., 694.

See also Hatch, T.

Mokruschin, S. G., Ginsburg, R. B., and Demjanova, N. M., laminar systems. III. Formation of thin layers of bismuth and lead sulphides on the surface of bismuth and lead salt solutions, A., 677.

Molaska Corporation, spray drying of molasses and other viscous food-stuffs, (P.), B., 218.

Molchanov, A. See Kirillov, E.

Moldavan, A., resazurin one-hour test for

milk quality, B., 952. Moldavski, B. L., and Kamuscher, H., catalytic cyclisation of aliphatic hydrocarbons, A., 818.

Kobilskaja, M. V., and Livschitz, S. E., isomerisation of hydrocarbons. II. Isomerisation of n-hexane and noctane in presence of aluminium chloride. III. Thermal isomerisation of n-hexanc and n-octane, A., 701, 960. Mole, G. See King, R. O.

Moles, E., at. wt. of hydrogen, A., 917.

and De Robles, C. R., system SO3-H2O and absolute sulphuric acid, A., 798. and Salazar, M. T., relationship between

the standard densities of nitrogen, carbon monoxide, and oxygen; at. wts. of carbon and nitrogen, A., 1171. and Sancho, J., mass of the standard litre of ammonia gas; at. wt. of nitrogen, A., 1171.

See also De Robles, C. R., and Vian, E. Molière, G., dynamic theory of crystal

optics, A., 145.

Molikov, L. P., and Chochlova, A. V. tantalum carbide in hard alloys, B., 744. Molinari, E. See Wenusch, A.

Molinari, H., anti-crease treatment for fabrics, (P.), B., 1036.

and Satta, G. C., chemical and physical tests on pentrite, B., 349.

Molinari, L., finishing textiles with ureaformaldehyde resins as anti-crease treatment, B., 540.

Molins, W. E., drying or conditioning of cigarettes, (P.), B., 576. Drying or conditioning of articles, (P.), B., 576. Molinski, S. See Joszt, A.

Molitor, H., pharmacological and toxicological properties of vinyl ether, A., 1149. Moll, F., use of mineral oils in wood impregnation, B., 791.

Moll, H. See Diehl, F.

Moll, K., ageing of tar in mixtures with stone, B., 61.

Moll, \hat{W} . \hat{L} . H., polarisation phenomena at the ferric-ferrous electrode, A., 566. Rôle of dielectric constant, polarisation, and dipole moment in colloid systems. XVI. Swelling and solubility of cellulosc acetate in ternary liquid mixtures. XVII. Swelling and solubility of cellulose derivatives and their relations to dielectric values, A., 1199, 1461.

Mollet, P. See Errera, J., and Sherrill, M. L. Molliard, M., effect of an atmosphere enriched in oxygen on development of plants, A., 392. Yield of green plants in relation to the oxygen content of the surrounding atmosphere, B., 1061.

Mollwo, E., electrical conduction in melts of alkali salts with a stoicheiometric excess of alkali metal, A., 139. Absorption spectra of sodium and potassium in melts of their halogen salts, A., 775.

Molnar, A., desizing with enzymes, B., 540. Molnár, E. See Ballo, R.

Molnar, J., photochemical decomposition

of nitrated phenols, A., 300.

Molodenski, V., mechanism of disaggregation of rubber by copper compounds, B., 944.

and Michailov, N., determining speed of solution of rubber samples in organic solvents, B., 847.

Molthan, W., energy losses by positive ions to probes in plasma of gas discharges, A., 263.

Moltkehansen, I. J., electrolytic cells for production of alkali and alkaline-earth

metals, (P.), B., 555.

Moltschanova, O. P., and Schtschepkin, N. G., assimilability of preserved meats in relation to the period of sterilisation to which they have been subjected, B., 857.

Moltschanova, O. S. See Krestinskaja,

Moltzau, R., and Kolthoff, I. M., mixed crystal formation of zinc sulphide post-precipitated with mercuric sulphide; ageing of mercuric sulphide and of zinc sulphide, A., 795.

See also Kolthoff, I.M. Molvig, H. See Stern, A.

Molyneux, G. S. See Molyneux, J. Molyneux, J., Williams, F., Dewhurst, H. H., Hoon, F., and Molyneux, G. S., electrically heated boilers for heating tar and tar bitumen compounds, (P.), B., 730.

Momma, A. See Hosoya, S. Momose, I. See Sakuma, I.

Monaghan, (Miss) B. R., and White, H. L., effect of proteins on electrophoretic mobility and sedimentation velocity of red cells, A., 1007.

See also White, H. L.

Monasterio, G., micro-determination of trimethylamine in urine, A., 362.

Monbiot, M. F., cellulose derivative moisture-proofing compositions, (P.), B.

Sce also Brit. " New-Wrap " Co. Monche, J. See Garcia Banús, A

Moncorps, C., and Bohnstedt, R. M., effect of reduced glutathione on curative action of neosalvarsan in the naganainfected mouse, A., 367.

Bohnstedt, R. M., and Schmid, R., sugar and glutathione contents of blood and skin in dermatitis produced by croton oil and by sunburn, A., 505.

Moncrieff, R. W. See Brit. Celanese.

Mond Nickel Co., Ltd., composite metal products, (P.), B., 332. Separation of platinum metals from mattes, (P.), B., Corrosion - resistant [rhodiumnickel] alloys [e.g., for pen nibs], (P.), B., 1212.

Mondain-Monval, P. See Paris, R.

Monden, S. See Kita, G.

Moness, E., and Christiansen, W. G., derivatives of 8-hydroxyquinoline, A., 1123.

Lott, W. A., and Christiansen, W. G., benzoyl persulphide, A., 983. Washing of "milk of magnesia" through a permeable membrane, B., 883.

and Squibb & Sons, E. R., bactericidal preparations, (P.), B., 298.

See also Christiansen, W. G.

Money, R. W. See Lampitt, L. H. Monfort, F. See Rosen, B.

Monguillon, P. See Lemoigne, M. Monias, B. L., action of decamethylenediguanidine bitartrate on blood-sugar, A., 375.

Moninger, W. See Lüers, H.

Monjakova, L. N., persulphate method of determining vanadium, A., 45.

Monnet, R., characteristic reaction of einchona alkaloids, B., 619.

See also Caujolle, F., and Musso, L.

Monnier, J. B., processes and plants for artificial drying of ceramic products, and in particular of tiles and bricks, (P.), B., 740.

Monod, J., and Tessier, G., concentration of food-stuff as the quantitative factor in the growth of a population of infusoria, A., 639.

Monossohn, A. M. See Pleskov, V. A.

Monro, A. D. See McIlroy, R. J. Monro, W. L., and Amer. Window Glass Co., annealing of sheet glass, (P.), B., 276. Monsanto Chemical Co., manufacture of

alkylated phenols, (P.), B., 1083. See also Akimoff, N. P., Carswell, T. S., Conover, C., Dvornikoff, M. N., Flint,

W. P., and Kyrides, L. P.

Monsanto Chemicals, Ltd., Mather, E., and Hamer, W. E., vanillin and similar hydroxyalkoxybenzaldehydes, (P.), B., 1143.

Monsanto Petroleum Chemicals, Inc. See Thomas, C. A.

Monsch, H. D. See Aluminum Co. of America.

Monson, H. H., and Amer. Smelting & Refining Co., treatment of antimonial lead, (P.), B., 796.

See also Amer. Smelting & Refining Co. Montagne, (Mlle.) M., and Isambert, Y., action of magnesium ethyl bromide on butyrethylanilide, A., 1096.

See also Ramart-Lucas, (Mmc.) P.

Montagne, P., reactions produced by adiabatic expansion in systems in chemical equilibrium, A., 801. Nomogram for the formation of ammonia in the equilibrium reaction 2NH3 = 3H2 $+N_2$, A., 1069.

Montagne, (Mme.) R. See under Herman-

Montagne, (Mme.) R.

Montagnon, (Mlle.) D., double iodides of copper and ammonium, A., 1216.

Montaldo, G., isolation and identification of B. coli, A., 1300.

Montalenti, G., action of hormones on plumage of birds, A., 642.

Montanna, R. E. See Mann, C. A.

Montariol, A. See Aujaleu, E.

Montegazza, A., uses and applications of formaldehyde, B., 970.

Montelucci, G., coating of iron with the molten cadmium-zinc cutectic, B., 549.

Montequi, R. Scc Otero, E.

Montevecchi, E., behaviour of the enteral vitamin towards solvents, A., 254, 529. Montgomerie, R. F., and Rowlands, W. T.,

Cl. welchii, type C, Wilsdon (B. paludis, McEwen), isolated from sheep in N. Wales, A., 1423.

Montgomery, A. E., drying rate for tissue and absorbent papers, B., 365.
See also Adams, F. W.
Montgomery, C. G., and Montgomery,

D. D., showers of rays which produce bursts of cosmic-ray ionisation, A., 133. Measurement of cosmic-ray showers by means of Geiger-Müller counters, A., 542.Absorption of cosmic-ray showers in lead, A., 774. Dependence of burst production on atomic number, A., 1316.

Montgomery, D. D., Ramsey, W. E., and Swann, W. F. G., search for protons in the primary cosmic-ray beam, A.,

1315.

Montgomery, D. D., and Swann, W. F. G., enhancement of cosmic-ray nuclear bursts by the presence of subsidiary material, A., 1175.

Montgomery, C. W. See Kassel, L. S. Montgomery, D. D. See Montgomery, C. G.

Montgomery, F. H. See Hartman, F. E. Montgomery, H., and Pierce, J. A., microdetermination of $p_{\rm ff}$ of fluid in renal glomeruli and tubules, A., 363.

Montgomery, H. B. S., and Moore, M. H., precision testing in the laboratory of toxicity of lime-sulphur and of Bordeaux mixture as protective fungicides, B., 36.

Moore, M. H., and Shaw, H., fungicidal and phytocidal properties of certain new chemical preparations, B., 899.

See also Moore, M. H. Montgomery, J., digestion of sewage sludge, (P.), B., 622.

Montgomery, M. See Farnsworth, W. H. Montgomery, R. B. See Jennison, H. C. Montgomery, T. N. See Imperial Chem.

Industries. Montgomery, W. B. See Hargrove, G. C. Montgomery, W. R. See Hartman, F. E. Monti, A., microchemistry of sulphur bacteria, A., 760.

Monti, (Signa.) L., and Cirelli, (Signa.) V., thalleioquinine reaction. II., A., 613. Action of formaldehyde on hydroxyquinolines, A., 617.

Martello, V., and Valente, F., nitration of polyeyclic aromatic hydrocarbons by means of nitrous fumes, A., 600.

Monti, N., volatile acids in butter from cows fed on rice bran, B., 168.

Montignie, E., carbides of lead and silver, A., 39. Slow action of fuming nitric acid vapour on metals, A., 173. Action of mercuric oxide on solutions of sulphates and nitrates, A., 439. Mercuric chromates, A., 439. Reactions of mercuric oxide, A., 439. Action of mercuric oxide on potassium dichromate, A., 439. Bivalent bismuth iodide, A., 440. Action of arsenic trichloride on the elements, A., 440. Action of nascent iodine and hydriodic acid on oxides, A., 576. Bismuth bromide, BiBr₂, A., 946. Action of ammonium chloride on oxides, A., 1080.

Montillon, C.H. See Jurgensen, D.F., jun.Montjol, E. E., purifying, sterilising, and conditioning of air, (P.), B., 302.

Montoro, V., annealing of martensite, B., 411. Lattice distortion in cast iron, B., 1097.

Montuori, R., phytin of seeds of Eleusine coracana (besna), Sorghum ætiopicum (dura), Eragrostis teff (teff), and Pennisetum spicatum (bultue), A., 123.

Monzer, A., casting of non-ferrous metals and their alloys, (P.), B., 1162.

Moody, A. H., and Langan, D. D., fusion temperature of coal ash as related to composition, B., 401.

Moody, J. E., road-surfacing material, (P.), B., 740.

Mookerjee, B. K. See Sirkar, S. C.

Mookherjee, A., orientation of the CO3 groups in the ammonium [and potassium] hydrogen carbonate crystal, Å., 144. Moon, C. H. See Maxted, E. B.

Moon, H. H., Smart, H. F., and Caldwell, J. S., freezing of blueberries in small packages, B., 665.

Moon, P. B., neutrality of the neutron, A., 1044. Passage of neutrons through paraffin wax, A., 1044. and Tillman, J. R., neutrons of thermal

energies, A., 402.

Moon, R. J., and Harkins, W. D., production of high-velocity particles in a cyclotron by use of multiphase oscillators, A., 400. Production of high-velocity ions for disintegration of atomio nuclei, A., 656.

Mooney, F. X. See Kuzell, C. R.

Mooney, G., and Winslow, C. E. A., metabolic activity of various colon group organisms at different phases of the culture cycle, A., 384.
Mooney, R. C. L., crystal structure of

ammonium chlorobromoiodide, A., 1327.

Moor, V. G., and Dementieva, M. I., determination of butadiene in gas mixtures by means of maleic acid, B., 532. Extracting divinyl [butadiene] from cracked gases. II. Comparison of solubility of butadiene and butylenes, B., 631. and Kanep, E. K., influence of some

factors on determination of butadiene by the Dobrjanski method and comparison of it with the Davis method,

B., 532.

Strigaleva, N. V., and Schilaeva, L. V. kinetics and mechanism of thermal transformations of unsaturated hydrocarbons; polymerisation of Δαγ-butadiene at atmospheric pressure, A., 51. See also Markovitsch, M. B.

Moorcraft, T. G. See Burbidge, P. W.

Moore, A. D., the hydrocal, B., 767. Moore, B., properties of fused silica, B.,

Moore, C., Suntzeff, V., and Loeb, L., specific nature of the inhibition of the coagulating effect exerted by tissue extracts on plasma resulting from incubation of tissue extract with blood-

serum, A., 1402. Moore, $C.\ E.$ See Babcock, $H.\ D.$, Russell, H. N.

Moore, C. L., [rayon] spinnerets. I. and II., B., 267.

Moore, C. R., testis hormone, A., 644.

Moore, C. V., Erlanger, R. J., and West, E. S., condensation products of aceto-acetic ester. IV. Two highly reactive compounds of glucose and acetoacetic ester, A., 457.

Moore, D. G. See Pole, G. R. Moore, D. H., relation between electron field emission and contact e.m.f. for liquid mercury, A., 1170.

Moore, D. P., [nickel-chromium-copper] alloy, (P.), B., 1212.

Moore, E. E. See Caesar, G. V.

Moore, E. K., grease stains on leather. VII. Comparison of solvents for removing kidney grease stains, B., 339. Moore, E. W. Sce Fair, G. M.

Moore, G. F., and U.S. Phosphoric Products Corp., phosphoric acid and its deriv-

atives, (P.), B., 931.
Moore, G. V. See Dow Chem. Co.

Moore, H., apparatus for treating one liquid with another, (P.), B., 81. Laboratory vacuum distillation unit and sevenstage countercurrent-treating apparatus [for petroleum crude oils], B., 133.

Moore, H. F., internal fissures in railroad rails, B., 323.

Moore, H. K., and Brown Co., multipleeffect evaporator, (P.), B., 963.

Moore, J. A., [differential] staining with safranine and fast-green FCF, A., 913.

Moore, J. G. See Imperial Chem. Industries.

Moore, (Miss) J. R. See Mendelssohn, K.

Moore, L. P. See Brocklesby, H. N. Moore, M. H., influence of manurial dressings and of certain other factors on the incidence of scab (Venturia inæqualis [Cooke], Wint.) and of spray injury in apples, B., 563. and Montgomery, H. B. S., combined

fungicide-contact-insecticide sprays in 1934, B., 36. Field-spraying trial of combined fungicide-contact-insecticide sprays, 1935, B., 899.

See also Montgomery, H. B. S. Moore, M. L., and Johnson, T. B., molecular rearrangement of N-thiolanilides. II.—IV., A., 200, 1103, 1504.

Moore, N. P. See Davis, L. D.

Moore, P. H., and Burget, G. E., absorption of glucose and water from chronic isolated loops of the colon, A., 1546.

Moore, P. M., masonry weatherproofing composition, (P.), B., 992.

Moore, R. J., fundamental factors in

protective coatings, B., 1005. See also Turkington, V. H.

Moore, R. L. See Spear, E. B. Moore, T. See Lederer, E. Moore, T. G. See Wandke, A.

Moore, W., and Amer. Cyanamid Co.,

insecticide composition, (P.), B., 900. Moore, W. A. See Parks, G. S.

Moore, W. E., and Pittsburgh Res. Corp., electric furnace, (P.), B., 460.

Simpson, G. L., and Pittsburgh Res. Corp., apparatus for using adsorbents, (P.), B., 399.

Moore Drop Forging Co. See Morris, A. W.

Moorman, E. V., and Moorman Manufg. Co., nutritional iodine, (P.), B., 123, Moorman Manufacturing Co. See Moor-

man, E. V

Moorshead, T. C. See United Glass Bottle

Moose, J. E., Malowan, J. E., and Swann Res., Inc., dielectric composition, (P.),

Mootz, F. J., and Reilly, P. C., carbon disulphide, (P.), B., 1032.

Moppett, W. See Harker, G.

Moraczewski, W., Grzycki, S., Sadowski,

T., and Guewa, W., effect of alkali and vegetable feeding on blood-urie acid and urate excretion, A., 628.

Morales, E., application of the ter Meulen-Heslinga method to the determination of organic matter and "combined' water in soil, B., 897.

See also Lipsehütz, A.

Morales, J. C., Castresana, M. I., and Garcia, J. V., wax matches, (P.), B., 956. Moran, C. S. See Riddle, O.

Moran, M. F., filter, (P.), B., 256. Filter

leaf, (P.), B., 1184.

Moran, R. F. See Hope, H. B.

Moran, T., bound water and phase equilibria in protein systems: ovalbumin and muscle, A., 96. Moravec, R. See Shell Development Co.

Moray, ternary system FcO-CaO-SiO₂, B.,

More, A., use of the microscope for food chemists, B., 569.

More, K. R., nuclear magnetic moment of cobalt, A., 1175.

Moreau, F., action of glycerol on Saprolegnia, A., 649. Action of sugars on Saprolegnia, A., 768.

and Moreau, (Mme.) F., toxicity of some cations to Saprolegnia, A., 1149. Moreau, (Mme.) \hat{F} . See Moreau, F.

Moreaux, value of Fiche's reaction in chemical analysis of honey, B., 296. Morehouse, N. F. See Becker, E. R.

Morel, A., Rochaix, A., Perrot, L., and Moutou, M., inhibitory power of two derivatives of 8-hydroxy-6-methylquinoline on pathogenic bacteria, A.,

Rochaix, A., Perrot, L., and Pegon, A., inhibitory power of derivatives of 8-hydroxyquinoline on pathogenic bacteria, A., 1156.

See also Arloing, F., and Courmont, P. Morel, C., dispersion by blood-scrum of a partly-flocculated scrum-globulin fraction, A., 621. Influence of alexin on the flocculating power of serum, A., 1010.

See also Doladilhe, M.

Morel, F. Sec Vincent, H. Morell, S., and Link, K. P., preparation of sinigrin, A., 910

Morelli, A. See Cartenl, A.

Morenko, G. F., protecting graphite electrodes from oxidation in electric furnaces, B., 202.

Moreno, G. G., and C. M. C. Corp., preparation of [photographic] films for reproduction in colours, (P.), B., 1180.

Moreno Martin, F., nitrogenous constituents of milk and their separate determination in human milk, A., 1139. Hydrogen sulphide apparatus, A,. 1225.

and Brocal, M. M., digitalin from Sierra Nevada, B., 1177.

and Sebastian, A., identification of lactose, alone or associated with

glucose, in urine, A., 1166. See also Clavera, J. M., Dorronsoro, J., and Polonovski, Michel.

Moreton, H. H. See Painter, R. K. Morette, A., constitution of vanadium carbide, A., 575. M.p. of vanadium oxytrichloride and vanadium tetrachloride; thermal analysis of the system chlorine-vanadium tetrachloride,

A., 929. Morey, G. W., studies in silicate chemistry of the Geophysical Laboratory of the Carnegie Institution of Washington, B.,

Morey, J.A. See Kobe, K.A.

Morgan, A. F., and Cook, B. B., nutritional factors which produce cataract and dermatitis, A., 1539.

See also Cleve, N. van.

Morgan, B. G. E. See Coward, K. H. Morgan, B. W. See Universal Oil Products Co. Morgan, D. R. See Stewart, H. L. Morgan, E. See Norbury, A. L.

Morgan, E. J. See Hopkins, (Sir) F. G. Morgan, F., absorption spectra of PbF, PbCl, and PbBr, A., 267. Band spectra of BiBr, BiCl, BiF, and BiI in absorption, A., 267. Band spectra of MgCl, MgBr, and MgI in absorption,

and Shawhan, E. N., band spectrum of arsenic oxide (AsO) and lead oxide (PbO), A., 1047.

See also Shawhan, E. N.

Morgan, (Sir) G. T., synthesis under pressure of aliphatic compounds, A., 1090.

[with Taylor, R., Hardy, D. V. N., Pratt, D. D., Stewart, (Miss) J., Veryard, J. T., and Burstall, F. H.], applications of high pressure in the synthesis of organic compounds, B., 732.

Morgan, (Sir) G. T., and Burstall, F. H., residual affinity and co-ordination. XXXVI. Constitution of "rutheniumred," A., 302.

Megson, N. J. L., and Holmes, E. L., organic glasses [resins], B., 510. and Piekard, R. H., explosions arising

from disopropyl ether, B., 732.
and Walton, E., new derivatives of
p-arsanilic acid. VII. p-Arsonoazelanilic and p-arsonosebacanilic acids and related compounds, A., 1131.

Morgan, H. H. See Imperial Chem. Industries.

Morgan, I. D. See Doherty Res. Co. Morgan, J. E., and Nielsen, W. M., shower production in small thicknesses of lead and other elements, A., 7.

Morgan, M. D. See Baldeschwieler, E. L. Morgan, M. F., and Jacobson, H. G. M., soil factors in relation to commercial peach production in Connecticut, B.,

Morgan, R. H., properties of processed

soya, B., 568. Morgan, S. O. See White, Addison II., and Yager, W. A.

Morgan, V. E., myoglobin. I. Solubility in concentrated ammonium sulphate solutions, A., 359.

Morgan, V. G., and Watson, H. B., preparation of m-nitroacetophenone, A., 333.

Morgan, W. L., retarding rancidity—[use of] coloured transparent cellulose wrappers, B., 120. Derris root powder in cabbage-moth control, B., 341.

Morgan, W. McG. See Clemo, G. R.

Morgan, W. T. J., immuno-chemistry. T.

Preparation and properties of a specific polysaccharide from B. dysenteriæ, Shiga, A., 898.

Morgan, W. W., fine-grain developer for spectrographic photography, B., 860. Morgen, R. A. See Astrowe, P. S.

Morgulis, A., and Kiselhof, M., utilisation of extracted tanbark as a fuel, B., 818.

Morgulis, S., and Friedman, A. F., iodometric micro-determination of nitrogen, A., 1280.

and Spencer, H. C., nesslerisation applied directly to a macro-Kjeldahl nitrogen determination, A., 1397.

See also Friedman, A. H.

Mori, C., acidosis, alkalosis, and carbohydrate metabolism; influence of acidand base-producing diets, A., 511.

Moriganov, P. V. See Minaev, V. I. Morikawa, I. See Hayashi, M. Morikawa, K., Benedict, W. S., and Taylor,

H. S., activation of specific bonds in complex molecules at catalytic surfaces. I. Carbon-hydrogen linking in methane and methane-d. II. Carbon-hydrogen and carbon-carbon linkings in ethane and ethane-d, A., 1213, 1346.

Sec also Taylor, H. S.

Morimoto, S., effect of various hormones on the blood picture, especially on displacement according to I. Thyroid gland. II. Effect nuclear of insulin in the correlation between thyroid and insulin, A., 1158.

Morimoto, Y. See Masaki, O. Morimune, M., phosphorus compounds and bound sugars in the blood of diabetics, A., 751.

Morin, C., the Vitali reaction: new technique permitting micro-determination of substances giving the reaction, A., 873.

Morin, G. See Hermann, H. Morino, Y. See Mizushima, S. Morisani, E. A. See Kelly, T. L. Morison, R. S. See Rosenblueth, A. Morita, I. See Aoyama, Shinjiro.
Morita, M. See Kiyohara, K.
Morita, N., sorption of ammonia and other

gases by arsenic trisulphide, A., 283. and Titani, T., deuterobenzene, A., 195. Isotopic composition of oxygen in air and water, A., 448. Influence of density differences between atmospheric and aqueous oxygen on data for oxygen and hydrogen isotopes, A., 1042. Differences in the isotopic composition of atmospheric and aqueous oxygen and the electrolytic separation factor of oxygen isotopes, A., 1042. Production of light water and determination of deuterium concentration in normal water, A., 1078.

See also Sameshima, J. Morita, S. See Osugi, S.

Morita, T. See Masaki, O.

Moritz, A. J. L., and Amer. Enka Corp., artificial silk, (P.), B., 690. Spinning [of artificial silk], (P.), B., 1087.

Moritz, H., molybdenum glance in the magnetic iron ore deposit of Schwarzen Krux, Schmiedefeld, Thüringer Wald, A., 1483.

Moritz, M. R., Shepherd, T. C. R., and Associated Electrical Industries, fluxes and flux-coated [ferrous-metal] electrodes for electric welding, (P.), B., 604. Moriwaki, K. See Ishikawa, Fusao.

Moriya, C., germicidal properties of the soil nema, Rhabditis pellio, Schneider,

A., 1424. Moriyama, H., toxicity of ricin and body temperature, A., 359. Ricin. II., A., 359. Morizot, P., determination of true solids in solid and liquid products, B., 212. Determination of solids in sugar solutions and [beet] sugar-factory products, B., 212.

Morland, D. See Blair, G. W. S.
Morley, R. H. H. See Parkes, G. D.
Morneweg, W. See Krnber, O.
Morningstar, O. See Warren, B. E. Morochovetz, A. E. See Volf, F. F.

Moroyu, S. See Sobue, H.

Morozov, A. A., structure of colloid particles of artificial atacamite, A., 157. Lyophilic colloids. II. Interaction of agar fractions, A., 426.

Morozov, I. R., the paracher as a function of density and molecular volume of a substance in its different chemical states,

Morozova, K. N. See Charit, A. J. Morral, F. R. See Jimeno, E. Morrell, C. E. See Glockler, G.

Morrell, J. C., non-structural adsorptive carbon, (P.), B., 84. Non-structural activated carbon, (P.), B., 84, 729. Structural activated carbon, (P.), B.,

Benedict, W. L., and Egloff, G., stability of gasoline to light; photochemical formation of colour, haze, gum, and reaction products, B., 307. Stability of pure hydrocarbons to light; photo-chemical formation of colour, haze, and reaction products, B., 677.

Dryer, C. G., Lowry, C. D., jun., and Egloff, G., gum in cracked gasoline, B., 677.

See also Egloff, G., and Universal Oil Products Co.

Morrell, R. S., and Davis, W. R., drying of oils and related unsaturated compounds, A., 313. Interaction between methyl esters of unsaturated aliphatic acids of the C20 and C22 class, containing four and five ethenoid linkings respectively, and malcic anhydride, A., 706. Oxidation of drying oils and cognate substances. I. Oxidation of malcic anhydride compounds of β -eleostearic acid and its triglyceride. II. Oxidation of maleic anhydride compound of a-elwostearie acid; properties of maleic anhydride compounds of a- and β -eleostearic acids. III. Effect of heat on oxidised β-elæostearin-maleic anhydride compound, A., 1361. Doubly conjugated system in a- and β -licanic acids, A., 1488. Composition of oiticica oil and its constituent mixed glycerides, B.,

Morrell, W. E., and Hildebrand, J. H., distribution of molecules in a model

liquid, A., 551.

Morrin, K. C., and Loeb, L., effect of various anterior pituitary gland preparations on thyroidectomised guinea-pigs, A., 900.

Morris, A., sifting apparatus, (P.), B.,

Morris, A. W., and Moore Drop Forging Co., preparing and nitriding a ferrous article, (P.), B., 602.

Morris, C. E., factors affecting the quality of steam-rendered lard, B., 748.

Morris, H. P. See King, F. B. Morris, J. C., and Pease, R. N., experimental activation energies of elementary reactions between hydrogen and the halogens, A., 163. Morris, L. C. See Nightingale, D.

Morris, L. D., and Scholes, S. R., revisions

of high temperatures, B., 21.

Morris, M. L. See Green, D. F.

Morris, M. M., volatile acids of wine,

B., 119. Morris, N., Ford, F. J., and Graham, S., rôle of acidosis and phosphate retention in the pathogenesis of rickets and rachitic tetany of infants, A., 1408.

and Wright, N. C., nutritive value of proteins for maintenance, A., 509. See also Badenoch, E.

Morris, R. E., and Cook, Walter A., binary systems of p-dichlorobenzene with diphenyl, naphthalene, and triphenylmethane, A., 290.
Morris, S. See Hutchinson, J. C. D.

Morris, S. O. See Funnell, E. H.

Morris, W. C. See Booth, H. S.

Morrison, W. S. See Jones, G. D. O.

Morrison, A. L. See Calico Printers'

Morrison, F. B. See Turk, K. L.

Morrison, F. R. See Cheel, E., and Penfold, A. R.

Morrison, G. O. See Shawinigan Chemicals, Ltd.

Morrison, H.J. See Irwin, W.H.Morrison, J. O. See Harned, H. S.

Morrison, R. B., occurrence and origin of celestite and fluorite at Clay Centre,

Ohio, A., 308.

Morrison, T. J. See Ross, J. D. M.

Morrow, J. E. See Aluminum Co. of America.

Morse, E. H. Sec McKee, R. H. Morse, F. W., potash in Massachusetts soils; availability to crops, B., 114.

Morse, H. W., and Donnay, J. D. H., optics and structure of three-dimensional spherulites, A., 1357.

Morse, J. F., colour and opacity of emulsions, A., 794.

Morse, M. See Schlutz, F. W.

Morse, P. M., Young, L. A., and Haurwitz, (Miss) E. S., tables for determining atomic wave functions and energies, A., 133.

Morse, R. B., liquid-purification plant, (P.), B., 1184.

Morsman, H. J., diphenylmalonic acid, A., 71.

Mortensen, R. A. See Leighton, P. A. Mortenson, M., flotation. I. Determination of foam effect of flotation media,

Morton, A. A., and Columbia Naval Stores Co. of Delaware, improving rosin, (P.), B., 1109.

and Hechenbleikner, I., condensations by sodium. VI. Malonic acids from mercury dialkyls. VII. General method for stopping the Wurtz reaction at the intermediate organometallic stages, A., 966, 1359.

Le Fèvre, W. J., and Hechenbleikner, I., condensations by sodium. V. Preparation of acids; dicarboxylic acids from monohalogen compounds, A.,

Morton, B. B., nickel alloys for low- and high-temperature service, B., 793.

Morton, E. A. See Courtaulds, Ltd. Morton, F., application of diphenylthio-carbazone (dithizone) to the determination of lead in urine, A., 1288.

Morton, H. A. See Hansen, M. E. Morton, J., composite sheet material consisting of adhesively bound yarns, (P.), B., 269.

and Harris, J. E. G., photographic sheet materials, (P.), B., 572.

Morton, R. A. See Ault, R. G., and Baeharach, A. L.

Morton & Co., Ltd., R., and Rawlins, G. A., apparatus for heating liquids, (P.), B., 1184.

and Robinson, P. D., tubular heatexchange apparatus for fluids, (P.), B., 128.

Moruzzi, G., and Guareschi, P., bromine content of the pituitary, A., 1011. Content of bromine in blood, A., 1135.

Mory, B., fuel briquettes, (P.), B., 1078.

Moschel, W., and Magnesium Development Corp., anhydrous magnesium chloride, (P.), B., 1038.

Moschini, A., effects of repeated injections of glucose on muscle-glycogen of the frog under normal conditions, A., 95. Effects of repeated injections of glucose on muscle-glycogen of the frog, in different experimental states, A., 95. Do the phosphorus and glycogen contents of frog muscle run parallel? A., 511. Glycogen of frog's liver and muscle after subcutaneous injection of sugars, A., 1546.

Moschini, S. C. A., action of cortical extracts of the adrenals (eucorton) on muscle-phosphagen in normal and adrenalectomised frogs, A., 526.

Moschkin, A., and Kazakova, L., variations in preparation of catalysts for oil hydrogenation, B., 627.

Mosebach, R. See Nacken, R.

Moser, H., simplified and accurate process for the calculation of heat loss in calorimetric determinations, A., 1223. Determination of the true specific heats of silver, nickel, \$\beta\$-brass, quartz crystal, and quartz glass between 50° and 700° by an improved method, A., 1453.

See also Staudinger, H.

Moser, W. See Soc. of Chem. Ind. in Basle.

Moses, D., fertility and soil reaction in
turf production, B., 33. Improved pastures in the coastal belt. II. Production under intensive management, B., 35.

Moses, R. L. See Weisman, A. I.

Mosettig, E., and Burger, A., phenanthrene series. IX. Amino-alcohols derived from 1:2:3:4-tetrahydrophenanthrene, A., 201.

and Krueger, J. W., phenanthrene series. X. Naphthquinolines, A., 1125.

and Robinson, Richard A., amino-alcohols from dibenzfuran [diphenylene oxide], A., 209.

See also Burger, A., Kamp, J. van de, and Robinson, Richard A.

Mosher, H. H. See Stein, Jacob. Mosher, W. A. See Williams, R. J.

Mosig, A., important chemical identification reactions of pharmacology, B., 667.

Mosinee Paper Mills Co. See Kernin, A. G.

Mosinger, M. See Imbert, R.

Moskova, J. S., hydrolysis of [hide]
epidermis under the influence of lime and potassium sulphide, B., 947.

Moskovitz, B. See Kolthoff, I. M. Moskvin, G. M. Sce Alexeevski, E. V.

Mosley, V. M. Seo Maxwell, L. R. Mosonyi, J., effect of thyroxine on vitamin-C metabolism, A., 254. Effect of sex hormones on the vitamin-C content of the adrenals and liver of guinea-pigs, A., 1301.

Moss, A. A. See Britton, H. T. S. Moss, A. E., and Okuda, H., nickel alloy steels and cast irons in railway locomotives, B., 1210.

Moss, A. H. See Newell & Co., Ltd., E. Moss, H. V., Snell, F. D., and Swann Res., Inc., sodium metasilicate detergent, (P.), B., 494.

Moss, L. A. See Kress, O. Moss, W. H. See Brit. Celanese.

Mosset, M. See Berthoud, A.

Mossini, A., thermal analysis and action on fermentation of mixtures of antiseptics, A., 1558.

Most, H. See Joliste, N.

Mostafa, G. E. G., Egyptian "Mich"

cheese, B., 665.
Mostovitsch, V. J., smelting and roasting of ores in the crude state, B., 324.

Moszew, J. See Dziewoński, K. Moszkowska, A. See Guyénot, E.

Mote, D. C., and Thompson, B. G., insecticides: substitutes for lead arsenate, B., 37.

See also Edwards, W. D., and Wilcox, J. Motley, E. P. See Behnke, A. R., and Shaw, L. A.

Moto Meter Gauge & Equipment Corpor-

ation. See Cheney, M. E.

Motokawa, K., adsorption and bioelectric potential in frog skin, A., 628. Influence of valency and concentration of ions on the potential difference of frog skin, A., 628.

Motor Seal Corporation. See Brinker, H, S.

Motovilova, N. N., catalysts promoting dehydrogenation and dehydration of alcohols, A., 962.

Motschan, I., Perevesensev, I., and Roginski, S., velocity of decomposition of ammonia on thoriated tungsten, A.,

Mott, N. F., superconductivity and other low-temperature phenomena, A., 147. Thermal properties of an incompletely degenerate Fermi gas, A., 417. Electrical conductivity of transition metals, A., 672. Electrical resistance of dilute solid solutions, A., 931. Optical constants of copper-nickel alloys, A., 1193.

See also Hulme, H. R.

Mott, R. A., cleaning of coal, using dense media, B., 257, 579. Use of coke for domestic purposes, B., 530.

and Wheeler, R. V., coking the Barnsley

seam. II., B., 1186.

Mottern, H. H. Sco Loesecke, H. W. von. Motwani, D. C., and Wheeler, T. S., condensation of othylene chlorohydrin with resorcinol, A., 839.

Motz, G. See Paal, H. Motz, H. See Mark, H.

Mouchel & Partners, Ltd., L. G., and Home, J. H., cooling towers, (P.), B., 80.

Moneka, V., microscopical examination and identification of "spring herbs," B., 472. Tale content of rice and detection of tale treatment, B., 615. Examination of leguminous seeds and other food-stuffs attacked by weevils and treated with hydrocyanic acid, B., 616.

Mougeot, A., and Aubertot, V., are free gases in thermal waters absorbed by the skin during bathing? A., 632.

Mougeot, M. P., fluorescence of synthetic dyes and of intermediates, B., 184.

Mougey, H. C., commercial situation of automotive extreme-pressure lubricants, B., 484.

Moulton, C. R., what the meat packer looks for in salt, B., 738.

Mounfield, J. D., proteolytic enzymes of sprouted wheat. I. and II., A., 637, 1420.

Mount, P. H. A., glass silk, (P.), B., 1094.

Mount, S. C., and Crittall & Co., Ltd., R., temperature-regulating systems employing thermostats, (P.), B., 27.

Grierson, R., and Crittall & Co., Ltd., R., thermostatic control [for buildings], (P.), B., 597.

Mountain Varnish & Color Works, Inc. See McDaniel, O.

Moureu, H., electrical moment of tantalum pentachloride and structure of the compounds AX₅, A., 408.

Magat, M., and Wetroff, G., two forms

of phosphorus pentachloride, A., 1188.

and Rocquet, P., reaction of ammonia with phosphorus pentachloride; amides of phosphorus and phospham. I. and II., A., 810. Phosphorus nitrides P_3N_5 and PN, A., 1476.

and Wetroff, G., phosphorus pernitride

P₄N₅, A., 440. Mouriquand, G., and Coeur, A., cellular fixation and non-fixation of ascorbic acid in dystrophies from avitaminosis-C, A., 254.

Coeur, A., and Viennois, P., synthesis of ascorbic acid in young organisms, A., 646.

Mourot, G., nitrogen metabolism in protein starvation, A., 233. Colorimetrie determination of allantoin, A., 353. Partition of nitrogenous constituents of urine and its physiological significance. VII. Evolution of specific endogenous nitrogen metabolism during protein inanition, A., 362. Synthesis of creatine during protein inanition, A., 1544.

Mousseron, M. See Canals, E. Mouton, M. See Janot, M. M. Moutou, M. See Morel, A.

Mow, H. G. See Nat. Aniline & Chem. Co. Mowat, D. M. See Davidson, J. N.

Mowe, W. L. See Aluminum Co. of America. Mowery, H. W., abrasive metal castings,

Mowry, H. Seo Barnette, R. M.

Moxon, A. L. See Franke, K. W.

Moycho, W., does protease secretion occur in bacteria? A., 245. Independence of the production of proteases and of the development of the cell of B. prodigiosum, A., 1155.

Moyer, A. J. See May, O. E., and Wells,

P. A. Moyer, F. H. See Moyer, R. P.Moyer, H. V. See Caldwell, J. R.

Moyer, L. S., and Abramson, H. A., electrokinetics. XII. Electro-osmotic and electrophoretic mobilities of protein surfaces in dilute salt solutions, A., 1068.

and Bull, H. B., electrokinetics. XVII. Surface charge and ion antagonism,

A., 155. Sco also Bull, H. B.

Moyer, R. P., and Moyer, F. H., liquid rectifying apparatus, (P.), B., 963.
Moyer, W. H., and Textile Machine Works,

centrifugal machine, etc., (P.), B.,

Moyle, C. L. See Smith, L. I.

Mozheiko, V. I. See Schur, M. F. Moznette, G. F., control of the pecan nut case-bearer (Acrobasis caryæ, Grote) in the south-east, B., 661. Mrak, E. M. See Cruess, IV. V.

Mrozowski, S., isotope displacements in the band spectrum of mercury deuteride,

A., 661. Isotope effect of ionised mercury hydrides (HgH+/HgD+), A., 1310. Muckenfuss, A. M. See Du Pont de

Nemours & Co., E. I.

Mudaliar, C. R., effect of naphthalene on germination of paddy seed, B., 756. Mudford, H. D. See Imperial Chem.

Industries.

Mudge, W. A., and Merica, P. D., aluminium-copper-nickel alloys of high tensile strength subject to heat treatment, B., 23. K-Monel, B., 64. Müffling, L. von. See Jost, W.

Mühe, I., iodine injuries with particular reference to "complete salts" injuries, A., 514.

Muchlberg, W. F., determination of copper in copper-coated wire, etc., (P.), B.,

891.

See also Hale, C. H., jun.

Muchlberger, C. W. See Lueth, H. C.

Mühlhäusser, W. See Jänecke, E.

Mühlsteph, W., sources of error in arsenic

determination by Gutzeit's reaction on paper strips, A., 694. Müller, Adolf. See Fischer, Hans.

Müller, Alex, van der Waals potential and the lattice energy of a n-CH₂ chain molecule in a paraffin crystal, A., 1052.

Müller, Arno, formation of half-acetals of aldehydes, CH2R. CHO; nature of their solution in benzyl alcohol. II. Constitution of phenyl- and p-tolyl-acetaldehyde and hydratropaldehyde on the basis of their electron distribution, A., 725.

Müller, Arthur. See Perez, S. Müller, A. H., effect of sulphur on the bone-marrow, A., 889.

Müller, D., and Larsen, P., dry matter production [by plants] in nitrogen and

potassium deficiency, A., 121. Müller, D. R. W., nickel and its alloys in petroleum refining, B., 865.

Mueller, D. W., and Barton, H. A., neutron effects in a photographic emulsion, A., 1313. Müller, Eberhard. Sec Fischer, Joseph.

Müller, Erich, potentiometric titration of sulphite and sulphoxylate, etc., A., 177. Passivity of chromium. IV. Electromotive behaviour of chromium amalgam, A., 800.

Müller, Erika. See Leithe, W. Müller, Ernst (Heidelberg), and Ehrmann, K., action of ultra-violet light on halogenated hydrocarbons. II., A., 1358.

and Freytag, A., n-butyl esters of thio-acids, A., 1093. Reaction of free cyanogen with butadiene, A., 1228. Action of ethyl diazoacctate on thiophenols, A., 1246.

Müller, Ernst (Marburg), micro-determination of phosphatase in serum, A., 245. Metal content of gallstones and bile,

A., 1288.

Müller, Eugen, and Bunge, W., magneto-chemical investigation of organic substances. X. Attempted synthesis of carbon diradicals; existence of diradicals, A., 1370.

and Müller-Rodloff, (Frl.) I., magnetochemical investigations of organic substances. VII. Pentaphenylcyclo-

pentadienyl, A., 712.

d Teschner, F., magnetochemical investigations of organic substances. VIII. Metal ketyls of 4-pyrones, A., 1396.

and Wiesemann, W., magnetochemical investigations of organic substances. IX. Magnetic behaviour of nitrogenradicals. XI. Bromobenzanthrone of Brass and Clar, A., 1381, 1391.

See also Funke, K.

Müller, E. A. W. See Sehmid, W. E. Müller, E. F. W., amino-acids and free

choline in bile, A., 1287.

Müller, E.J., is German crucible graphite a perfect substitute for foreign graphite? B., 1075.

Müller, E. W., dependence of the field electron stream on work of emission.

A., 1439.

Müller, Friedrich, and Dürichen, W. measurement of e.m.f. and very weak direct current by means of electron tubes, A., 182. Photo-electric analysis with fluctuating light, A., 445. Applications of the glass electrode in conjunction with the valve potentiometer, A., 1481.

See also Riesenfeld, E. H.

Müller, Fritz. See Müller, Richard. Müller, Fritz (Zurich), line absorption of thallium doublet = 3519.29 A. during thermal excitation of the metastable $6^2P_3/_2$ level, A., 2. Vapour-pressure curve of thallium at very low densities, A., 930.

Müller, F. H., and Dürkopp-Werke Akt.-Ges., multi-colour screen for production of photographic colour pictures, (P.), B., 668. Two-colour or multicolour photographic pictures, (P.), B.,

Mueller, $G.\ B.$ See Cann, $J.\ Y.$ Müller, $G.\ J.$ See Smits, A. Müller, H. See Jungbluth, H.

Müller, H. (Berlin). See Driest, E. Müller, H. (Frankfort-a-M.). See Felix,

Müller, H. (Hamburg), control in production of water-gas from lignite in a continuous generator, B., 726.

Müller, Hans, permanent polarisation of Rochelle salt, A., 17. Optical properties of non-polar liquids,

See also Forhes, J. E.

Müller, Herbert. See Weyrauch, F.

Müller, H. G., recrystallisation processes. I. Single particle recrystallisation of deformed single crystals. II. Recrystallisation of single crystals. III. Compressed powdered rock-salt, A., 142.

Müller, H. K., mechanism of formation of vitamin-C in the [cyc] lens, A., 1303.

See also Demole, V.

Mueller, I., migraine as a pituitary disease and its treatment with ovarian preparations, A., 387.

Müller, Jacob, and Pilat, S. von, cyclic constituents of petroleum ceresin, B.,

Müller, Johannes, Müller, M., and Sachtleben Akt.-Ges. f. Bergbau & Chem. Ind., purification of natural heavy spar, (P.), B., 884.

Müller, Johannes (Breslau). See Slotta, K. H.

Mueller, J. H., cultural requirements of bacteria. VI. Diphtheria bacillus, A.,

and Kannick, I., cultural requirements of bacteria. VII. Amino-acid requirements for the Park-Williams No. 8 strain of diphtheria, A., 383.

Müller, Karel, determination of sulphur in iron by Holthaus' method, B., 1155.

Müller, Kurt. See Fischer, Hans. Müller, Ludwig. See Weitz, E.

Müller, M. See Müller, Johannes.

Müller, O. See Wedekind, E.

Müller, P. See Bernhauer, K.

Müller, Reinhard, Eitel, H., and Loeser, A., evaluation of the thyrotropic hormone of the human pituitary, A.,

and Scheiner, K., comparison of histological and quantitative spectrographic investigations of mercury poisoning,

Müller, Richard, Schenk, Martin, Wirtbatz, W., Müller, Fritz, and Boehringer & Soehne G.m.b.H., C. F., [catalyst for] esterification of cellulose, (P.), B.,

Müller, Robert (Essen), [Kipp-type] gas-producing apparatus, (P.), B., 674.

Müller, Robert (Loeben), K-monel metal and its technical properties, B., 889.

and Harant, L., anodic pickling of iron and steel, B., 551.

Müller, Ralph H., and McKenna, M. H., photo-electric colorimetry. VIII. Starchiodine system, A., 954. Müller, Robert H. See Gen. Electric Co.

Müller, R. L., conductivity of glasses, A., 139. Derivation of a general expression for velocity of solution of a solid body, A., 1456. Kinetics of solution of alkali borate glasses, A., 1470.

and Weinstein, C. V., rate of solution of alkali borate glasses, A., 1074.

See also Markin, B. I.

Müller, S., probable occurrence of tunicin in the dorsal sac of Sepia, A., 227. Sugarabsorption by hydroxyanthraquinones.

I., A., 606.

Müller, W. (Göttingen). See Tammann, G.

Müller, W. (Neuhausen). Seo Irmann, R.

Müller, Wilhelm (Basle). See Ruggli, P.

Müller, Wilhelm (Giessen). See Behaghel, O., and Koenig, Paul.

Müller, W. J., theories of corrosion. III. Determination of the metal potential of a working anode and of the potential and resistance requisite for local cells, A., 940, 1474.

Freissler, H., and Plettinger, E., anodic behaviour of gold-copper alloys in 5N-hydrochloric acid and 1N-sulphuric

acid, A., 1207.

and Graf, Ernst, detoxification of town's gas, B., 818.

and Löw, E., theory of passivity. XXIX. Theory of the barrier layer in aluminium, A., 683. Theories of corrosion. V. Application of the pore theory to phenomenon of the difference effect of Thiel and Eckell, A., 1474.

and Nachtigall, E., theory of passivity. XXX. Passivity phenomena at magnesium anodes in acid solutions, A.,

1468.

Müller-Neuglück, H. H., influence of temperature correction on calculation of calorific power of solid and liquid fucls, B., 481.

and Ammer, G., constitution and behaviour of paints for boiler interiors, B., 1216.

Müller-Rodloff, Frl. I. See Müller, Eugen. Müller-Skjold, F., injury to paintings by X-rays, B., 380.

and Schmitt, H., application of infra-red photography to study of paintings, B., 1005.

See also Günther, P., and Kornfeld, G. Muench, F. J., Muench, J. L., and Gen. Machine Co., apparatus for blending materials. (P.), B., 721.

Münch, H., structure of silk fibroin, A.,

Muench, J. L. See Muench, F. J.

Muench, O. B., monazite from West Portland Township, Quebec. II., A., 49. Sulphur in cyrtolite and its indication of galena, A., 1086. Münchberg, F. Sce Mészáros, G.

Münchmeyer, A. See Fonrobert, E.

Münster, A. See Wessely, F. Münzberg, F. K., exchange between tri-

hydroxybenzenes and heavy water, A., 1104. Exchange between dihydroxybenzenes and heavy water, A., 1104.

[with Oberst, W.], exchange between organic compounds and heavy water, A., 454.

Muers, M. M., biological purification of whey solutions, B., 391.

Mugele, R. See Evans, R. D.

Muggeridge, J., [report of] entomology section, B., 661.

Muggleston, G. D. See Wells, S. D. Muhleman, G. W., efficient fume hood [for laboratories], A., 306.

Muhlert, F., utilisation of the nitrogen and sulphur in bituminous coal, B., 773. Muir, G. D. See Cumming, W. M.

Muir, J., notched-bar bend tests of longitudinal and transverse specimens [of steel]; influence of annealing and overstrain, B., 644.

Muir, R., and Niven, J. S. F., local formation of blood-pigments, A., 1134.

Mukaiyama, M., electric refining of steel, B., 414. Electric pig iron and ferrous alloys, B., 414.

Mukherjee, D. M., methyl-red as an

adsorption indicator, A., 303.

Mukherjee, H. N., hypoglycæmic action of insulin phosphotungstate and phosphotungstic acid administered by mouth, A., 250. Hypoglycemic and other actions of phosphotungstic acid, phosphomolybdie acid, and allied substances, A., 1414.

Mukherjee, J. N., Chaudhury, S. G., and Bhabak, K., cataphoretic velocity of colloidal particles during aggregation. I., A., 1201.

Chaudhury, S. G., and Ghosh, B. N., cataphoretic migration velocity of inorganic colloids, A., 796.

Chaudhury, S. G., and Sen-Gupta, J. variation of cataphoretic velocity of colloidal particles during coagulation.

II., A., 1337. Mitra, R., and Sen-Gupta, N., measurement of absolute rates of migration of ions by the method of moving bound-

aries. II., A., 565.
Mukherjee, M. K., and Dutt, S., colour and constitution of dyes derived from

fluorenone, A., 480. Mukherjee, S. P. See Basu, K. P.

Mukherji, A. See Qudrat-i-Khuda, M. Mukherji, P. C., ultra-violet absorption spectra of Pr⁺⁺⁺ and Nd⁺⁺⁺ ions in solution, A., 1443. Mukherji, S. K. See Dhar, N. R.

Mulcahy, B. P., gas analysis; application of exact analysis to industrial problems, B., 531, 726. Reformed natural gas, B., 726.

Mulder, A. G. See Lee, D. H. K.

Mulder, C. H. K. See Backer, H. J.
Mulholland, J. H. See Wright, A. M.
Mulholland, V. See Hartford Empire Co.

Mulinos, M. G., carbohydrate metabolism under barbiturate narcosis, A., 375. Anæsthetic properties of "sodium ethyl-pentylmalonylthiourea," A., 1415.

Mull, J. E. See Sattler, L.

Muller, A., dipolar theory of sense of odour, A., 889. Muller, G.J. See Gerding, H.

Muller, M., and Balgairies, E., high agglutinin content of the serum of an injurious universal donor, A., 748.

Muller, O. F., treatment of textile fibres and fabrics made therefrom, (P.), B., 788. Muller, P., determination of fat in fæces, A., 1140.

Mulligan, B. O. See Walton, C. L. Mulligan, M. J. See Cramer, P. L.

Mulliken, R. S., electronic structures of molecules. XIV. Linear triatomic molecules, especially carbon dioxide, A., 13. Hopfield's Rydberg series and ionisation potential and heat of dissociation of nitrogen, A., 261. Absorption processes in the halogen spectra, A., 1310.

Mullin, C. E., constant-temperature baths for dyeing, B., 271. Properties and application of oils for rayon, B., 586.

Mulschaert, R., iron-silicon alloys, (P.),

Multigraph Co. See Rowell, G. S. Multistamp Co., Inc. See Brandt, L. G.

Mumper, H. See Howes, R. T. Munch, J. C., Garlough, F. E., and Ward, J. C., bioassays of rodenticides, B., 1233.

See also Miller, E., and Ward, J. C.

Mund, M. W., application of thermodynamics to chemical equilibria in homogeneous systems, A., 681.

Mund, W., and Luyckx, A., verification of the laws of Knudsen and of Reynolds by means of radon, A., 930.

Mundell, J. H. See Krueger, A. P.

Mundorier, I., refractory clay from Novo Mesto [Yugoslavia], B., 544.

Munds, E., $p_{\rm H}$ values and methods of

determining p_H in the pulp and paper industry, B., 1146. and Chang, Y., composition and properties of kaoliang stem and ku tze straw, B., 689.

Mune, K., effect of the epithelial cell and colloid substance on the thyroid gland, and of alcoholic hydrochloric acid extracts of the thyroid and of residues from such extracts on tissue respiration, A., 1146. Effect of blood-serum of rabbits, in which the thyroid function has been experimentally disturbed, on tissue respiration, A., 1158. Influence of bloodserum of goitre patients on tissue respiration, A., 1540.

Munger, F. See Smith, L. E. Mungomery, R. W., salt useless Mungomery, R. W., salt useless as a grub killer [for sugar canes], B., 516.

Municipal Sanitary Service Corporation. See Raisch, W.

Muñoz, J. E., determination of nicotine in juice and in tobacco, B., 475.

Munoz, J. M., fluorine in bones and teeth in fluorosis, A., 1540.

Munro, J., and Percival, E. G. V., monomethylhexoses. II. Revision of the constitutions of the supposed 4-methylgalactose and 4-methylmamiose of Pacsu, and their formulation as 6-methylgalactose and 2-methylmannose, respectively, A., 826.

Munro, J. A., and Fox, carpenter worm; biology and control,

Munro, J. W., recent advances in fumigation and the needs of fumigation practice, B., 765.

Munro, L.A. See Alexander, W.A. Munroe, D. See Rhodin, B.E.F.

Munsch. See Florentin, D.

Munsell, H. E., and Kennedy, M. H., vitamin-A, - B_1 , -C, -D, and B_2 content of the outer green leaves and inner bleached leaves of Iceberg lettuce, B.,

See also DeVaney, G. M.

Munteanu, M., cracking of hydrocarbons, oils, tars, and coal-oil suspensions, and manufacture of colloidal and similar fuels, (P.), B., 969. Munteanu, N. See Benetato, G.

Munters, C. G., heat insulation, (P.), B., 2, 576, 817.

Muntsch, O., gas protection. I. Treatment of phosphorus burns, A., 626. Behaviour of dichlorodiethyl sulphide towards fats and ointments, B., 859. Protection and first-aid against the action of dichlorodiethyl sulphide, B., 859.

Muntwyler, E., Myers, V. C., Danielson, W. H., and Zorn, C., acid-base changes in serum of the dog associated with hyperthermia of dinitrophenol administration, A., 515. See also Way, C. T.

Munumer, C. See Costa, F.

Munz, E., and Bailey, C. H., relation of amylase activity to gassing rate [of doughs], B., 951.

Murach, N. N., and Markarov, G. K., melting zinc dust under fluxes, B., 198.

See also Vaniukov, V. A.

Murakami, M., and Irie, T., fukugenetin, a rearrangement product of fukugetin, A.,

Murakami, R., influence of monochromatic light on proteolytic enzymes in yeast, oxidation-reduction enzymes of yeast, yeast amylase. I. and II., A., 638. Influence of monochromatic light on action of the fat-splitting enzyme in yeast, A., 1419. Murakami, T., and Hatta, A., effects of

special elements on velocity of expansion due to martensitisation during quenching

of steel, B., 197.

Murakawa, K., anomalies in the fine structure of the first spark spectrum of iodine, A., 916.

Muralo Co., Inc. See Iddings, C.

Murao, S., incidence of rickets; "gallo-sterol" as a source of vitamin-A with normal dietary phosphorus and calcium, A., 763.

Muraour, H., origin of nitrous oxide and hydrogen cyanide formed by decomposition of cellulose nitrate, A., 319.

and Aunis, G., laws of combustion of colloidal powders, B., 1069.

and Michel-Lévy, A., production of metallic spectra by shock waves, A., 655. Spectrum of ionised calcium excited by shock waves, A., 1167.

and Wohlgemuth, J., detonation of mercury fulminate and gelatine dynamite by ignition at high temperature, B., 1133.

See also Michel-Lévy, A.

Murari, T., effect of sulphur on Bellary sheep, B., 1126.

Murashkinski, F., control of loose smut of

wheat, B., 40.
Murata, F., differential solution of sodium bromide in its aqueous solutions and the activity coefficients of sodium bromide in concentrated aqueous solu-

tions, A., 681.

Murata, T. See Hirota, K.

Murata, Y., Ishikawa, S., and Tsuneoka, S., synthesis of benzine from carbon dioxide and hydrogen at ordinary pressures. XXXI. Influence of the velocity of gas stream on the reaction, B., 1028.

and Tsuneoka, S., synthesis of benzine from carbon dioxide and hydrogen at ordinary pressures. XXX. Influence of the amount of contact on the re-

action, B., 1028. See also Tsuneoka, S.

Muratsch, N. N., removal of zinc from hightin bronze, B., 236.

Murayama, M., biochemistry of serum

irradiated with artificial light. VIII. Analysis of serum-protein, A., 1529. Murayama, T., progress of the frozen food industry in Japan, B., 713.
Murch, W. M. See Dow Chem. Co.

Murck, K., and Bruning Co., Inc., C., tracing cloth, (P.), B., 450.

Murdoch, J., silica-fluorite pseudomorphs, A., 585. Andalusite in pegmatite, A., 701.

and Webb, R. W., bustamite from [Saline Valley], Inyo County, California, A.,

Muretov, M. V. See Grabovski, V. A.

Murex Welding Processes, Ltd., and Paterson, J. H., welding rods for use in automatic electric arc-welding, (P.), B., 334.

Murgulescu, I. G. Sec Candea, C. Murlin, J. R. See Kochakian, C. D.

Murneek, A. E., fertilising fruit trees with nitrogen, B., 852.

Muromtzev, B. A., dissociation pressure of crystal hydrates of variable composition, A., 1464.

Murooka, T., hydrogen sulphites. III. Reduction of sodium hydrogen sulphite by zinc amalgam. II., A., 40.

Murphy, A. J., non-ferrous casting alloys of high strength, B., 889.

See also Stone & Co., Ltd., J. Murphy, D. F., and Vandenberg, G. B., speed of action of household sprays, B., 1133.

Murphy, E. See Dove, W. F. Murphy, E. A. See Dunlop Rubber Co., and Internat. Latex Processes.

Murphy, E. J., control of alkalinity in drybox purification [of coke-oven gas], B., 402.

See also Mitchell, A. C. G.

Murphy, G. B., and Atlantic Refining Co., conversion of hydrocarbon oils, (P.),

See also Watson, K. M.

Murphy, G. M., free energy of iodine and hydrogen iodide from spectroscopic data, A., 936.

Murphy, H. C., effect of crown rust on

composition of oats, A., 1570.

Murphy, H. F., nitrogen, phosphorus, and calcium contents of the cotton plant at pre-blooming to early boll stages of

growth, B., 659.

Murphy, I. G. See Limarzi, L. R.

Murphy, R. R. See Guerrant, N. B.

Murray, A. See Eastman Kodak Co. Murray, F. L. S. See Murray, T. S. S. Murray, G., recovery of zinc and lead from the slag of [lead] blast furnaces at Trail (British Columbia), B., 840.

Murray, G. N., Schutte, D. J., and Du Plessis, J. A., effect of barley, millet, and lucerne meal in bacon production, B., 427.

See also Roux, L. L.

Murray, H. D., choice of counterstains, A., 535.

and Spencer, D. A., composite-layer film for use in colour photography, (P.), B.,

Murray, H. L., and Te Aroha Dairy Co., deodorisation of cream, milk, and other fluids, (P.), B., 624.

Murray, J., recovery of silver from thiosulphate solutions, (P.), B., 1206.

Murray, J. J., composition enamels [for photo-engraving plates], (P.), B., 206. White, L. A., and Rogers Isinglass & Glue Co., enamel [for photo-engraving plates], (P.), B., 572.

Murray, J. V., and Cloke, J. B., alkyleneand alkylidene-phenylacetonitriles and derivatives: 1-cyano-1-phenyl-2-ethylcyclopropane and a-phenyl- β -ethyl- and -β-isopropyl-acrylonitriles, A., 1506.

Murray, K. A., nature and amount of the colloids present in sewage. Electrodialysis of sewage, B., 1133.

See also Williams, E.

Murray, L. A., jun. See Rodebush, W. H. Murray, M. M., chemical composition of teeth. IV. Calcium, magnesium, and phosphorus contents of the teeth of different animals; mechanism of calcification, A., 1285. See also Bowes, J.H.

Murray, S. See Deuel, H. J., jun.

Murray, T. F., jun. See Eastman Kodak Co. Murray, T. S. S., and Murray, F. L. S., hydrometer or saccharometer, (P.), B.,

Murray, W. M., jun., and Furman, N. H., reducing action of mercury. III. Hydrogen peroxide formation and the copper-catalysed autoxidation of quinquevalent molybdenum and other strong reductants in acid solution, A., 1471.

See also Furman, N. H.

Murrell, F. C. See Knoefel, P. K. Murrill, P. I. See Vanderbilt Co., Inc., R. T.

Murrill, W. A. See Freyberg, R. H. Murtazajev, A., and Gorodetzkaja, electrocapillarity curve of gallium. II., A., 1459.

Murza-Murzicz, S., and Bohdanowiczówna, H., effect of lack and excess of vitamin-Bon calcium and magnesium content of tissues of pigeons, A., 528.

Musakin, A. P., colorimetric determination of aluminium with alizarin S, A., 952. Colorimetric determination of aluminium by means of alizarin-red S, A., 1221.

Musante, C. See Fusco, R.

Musatov, K., semi-commercial plant for refining cracked gasoline with solid zinc chloride, B., 402.

Musatti, I., and Dainelli, L., influence of heat treatment on fatigue- and corrosion-resistance of aluminium bronzes, B., 840.

and La Falce, A., action of molten zinc on iron, steels, and special steels, B., 888. and Reggiori, A., formation of flakes in nickel-chromium-molybdenum steels, B., 322.

Muschenheim, C. Seo Hardy, J. D. Muschkatblat, M. M., Bruschkin, I. M., and Bespalko, drying of casein paints, B., 29.

Musgrave, G. W., measuring precipitation waters lost from the soil as surface runoff, percolation, evaporation, and transpiration, B., 113.

Musgrave, J. R. See Ferguson, J. B. Musgrave & Co., Ltd., and Stewart, S. D., drying apparatus [for yarns, etc.], (P.), B., 928.

Musher, S., [stabilising] treatment of glyceride fats and oils, (P.), B., 1004. Musienko, P. M., magnesite brick, B., 234.

Musil, A., Brönsted's kinetic equation and the Debye theory. II., A., 801.

Muskovits, A. See Jacquemain, R. Mussehl, F. E., and Aekerson, C. W., calcium and phosphorus requirements of growing turkeys, A., 512.

Musselman, J. M. See Standard Oil Co.

Musser, R. J. See Brown, F. D.

Musserski, N. N., Kassatkina, V. N.,
Babitscheva, V. N., and Fintiktikova, S. A., chemical composition of homecanned products and the solution of lead and tin by such products in relation to length of storage, B., 953.

Mussgnug, G., blast-furnace slags with properties similar to those of a Portland cement, B., 21. Expansion and shrinkage of cement, B., 545.

Musso, J. O., influence of soil temperature

on plant growth, B., 116.

Musso, L., and Monnet, R., solubility in water of the basic hydrochloride and basic formate of quinine in presence of antipyrine and of urethane, B., 170.

Muszyński, J., alkaloids of European Lycopodium species, A., 125.

Muta, S. See Kiyohara, K.

Mutch, W. W., fine structure in the K X-ray absorption edge of gallium, A., 1169, 1438.

Mutermilch, S., and Grimberg, A., gonococcal polysaccharides, A., 113.

Mutersbaugh, G. H. See O'Brien, W. J. Muth, J. E. See Standard Oil Co. of

California. Muto, T., quantum theory of phosphorescence of crystal phosphors, A., 270. Study of thermoluminescence in some crystals, A., 270. Forms of the X-ray absorption edges in metals and insulators, A., 1170. Quantum theory of electrical conductivity of alloys in superlattice

state, A., 1332.
Mutsaars, W., effect of sucrose on thermoresistance of alexin, A., 747.

and Alexander, J., antigenic character of proteins heated in sucrose media, A., 622.

and Grégoire, P. E., antigenic properties of proteins linked through ureide or azo-groups to aromatic nuclei, A., 1532.

and Robert, J., action of sucrose on alexin at high and low temperatures, A., 747.

Mutschin, A., potentiometrie titration of sulphite and sulphoxylate alone and in presence of hyposulphite, A., 177. Volumetric determination of antimony, arsenic, and iodide in the presence of bromide by L. W. Andrews' method, A., 1081.

and Pollak, R., direct titration of sulphate with barium chloride using sodium rhodizonate as external indicator, A., 1478.

Mutual Citrus Products Co., Inc., pectous material, (P.), B., 619.

Muus, (Miss) J., carbon dioxide cleavage

from dibromomalonie acid. II., A., 295. Myddleton, W. W., and Walker, J., hydrocarbon oils from industrial gases. II., B., 581.

Myers, C. S. See Mason, H. L.
Myers, D. W. See Ethridge, C. B.
Myers, E. B., ore-crushing apparatus,
(P.), B., 769.
Myers

Myers, F. E. See Roberts, A.

Myers, H. E., differential influence of certain vegetative covers on deep subsoil moisture, B., 1061.

Myers, R. D., use of the image potential for the surface photo-electric effect, A., 1041.

Myers, R. J., collapse of unimolecular films of palmitic acid on acid solutions, A., 284.

See also Florence, R. T., and Harkins, W. D.

Myers, V. C. See Muntwyler, E. Myers, V. V. See Eveleth, D. F.

Myers-Sherman Co. See Sherman, $R.\ L.$ Myhren, $A.\ J.$, Marquis, B., and New Jersey Zine Co., apparatus for mixing liquids and gases, (P.), B., 962. [Zine sulphide] precipitates, (P.), B., 1151.

Myhren, A. J., and New Jersey Zinc Co., treatment of zinciferous material, (P.), B., 145.

Sec also New Jersey Zinc Co.

Myrbäck, K., trehalose in pressed yeast, A., 759. Nature of cozymase, A., 894. Hydrolysis of starch by vegetable amylases. I., A., 894. Cozymase. XI. Reducing group of cozymase, A., 1151.

and Jorpes, E., determination of molecule size of nucleic acids and mononucleotides by the free diffusion method; size of the molecule of pancreatic pentosepolynucleotide and of

cozymase, A., 226. and Myrbäck, S., action of a-glucosidase on a-methylglucoside and certain diand tri-saccharides, A., 758. Free and bound amylase of barley, A., 894.

and Ortenblad, B., cozymase. X. Phosphatase and cozymase, A., 1151.

Myrbäck, S. See Myrbäck, K.

Myssütkina, M. See Anikin, N.

Mystkovski, E. M., proteases and ontogenesis. I. Cathepsin in the chick embryo, A., 759.

Stiller, A., and Zysman, A., polysaccharo-proteins. VI. State of glycogen in muscle. II., A., 96. Sec also Giedroyć, W.

Naamlooze Vennootschap Algemeene Chemische en Technische Maatschappij "Achetem," cellulose ethers, (P.), B., 1087.

N. V. Chemische Fabriek L. van der Grinton, copying of opaque originals by contact printing, (P.), B., 253. Reflex copies, (P.), B., 477. Photographic contact printing by reflected light, (P.), B., 717.

See also Grinten, L. P. F. van der.

N. V. Chem. Fabr. "Servo," and Rozenbrook, M. D., washing, cleansing, wetting, and emulsifying agents and treatment baths containing them, (P.), B., 1141.

N. V. Fabr. van Chemisehen Producten. See Jurling, J. G.

N. V. Industrieele Maatschappij voorheen Noury & van der Lande, driers, (P.), B., 1006. Hydrogen peroxide, (P.), B., 1151. Electrolysis of aqueous solutions [to form perborates], (P.), B., 1214.

V. Internationale Alfol-Maatschappij, thermal insulation, (P.), B., 352, 576. and Alfol-Dyckerhoff Ges.m.b.H., heat

insulation, (P.), B., 2.

and Dyckerhoff, E., air-permeable, heatinsulating sheet material, (P.), B., 674.

- N. V. Koppers Industrieele Maatschappij, H. See under Koppers Industrieele Maats.,
- N. V. Maatschappij tot Beheer en Exploitatie van Octrooien, ceramic-like articles, (P.), B., 740.
- N. V. Maats. tot Exploitatie van "ten Bosch Octrooien," briquettes from normally non-coherent substances, particularly coal dust, lignito dust, etc., (P.), B., 356. Compression matrix for making briquettes or tablets from fine-grained or powdery materials, (P.), B., 913. Compacting of powdered material centrifugally and feeding to [other] apparatus, (P.), B., 1072.
- N. V. Maats. tot Exploitatie van Uitvindlngen, electrodes for electrolytic condensers, (P.), B., 203, 647.

- N. V. Machinericen- en Apparaten Fabrieken Meaf," separation of asphalt from heavy oils or residues, (P.), B., 135. Simultaneous washing of light hydrocarbons and naphthalene out of gases, (P.), B., 228. Method of, and means for, transferring liquefied combustible gases, (P.), B., 682. Electron valves, (P.), B., 940.
- N. V. Nederlandsch Laboratorium de Spaarnestad, multicolour photography, (P.), B., 861.
- N. V. Nederlandsche Kininefabriek, halogenated phenanthrolines, (P.), Ī179.
- N. V. Nieuwe Octrooi Maatschappij, cracked gasoline having low gum content, (P.),
- N. V. Noord-West Orion Handel Maatschap-
- pij. See Brandus, E. N. V. Octrooien Maatschappij "Activit," treatment of liquids [e.g., water] for securing ion exchange or for the purpose of removing substances dissolved therein, (P.), B., 958. Active carbonaceous material possessing colloidal properties, (P.), B., 1078.
 - and Smit, P., base-exchange materials, (P.), B., 1039.

V. Onderzoekingsinstituut Research, spinning arrangement for production of artificial filaments, more particularly

artificial silk, (P.), B., 143.

- N. V. Philips' Gloeilampenfabrieken, electric incandescence lamps, (P.), B., 27, 203, 1164. Photo-electric electrodes, (P.), B., 156. Obtaining photographic contrasts by means of diazonium compounds and sensitive layers for use therein, (P.), B., 173. Electric storage batteries, (P.), B., 202. Utilisation of consumed electric storage batteries, (P.), B., 283. Electric-discharge tubes [containing alkali-metal vapour], (P.), B., 283. Cathodes for electric-discharge tubes, (P.), B., 283. Fluorescent screens, (P.), B., 283, 1002. [Bulbs for] high-temperature sources of ultraviolet light, (P.), B., 283. Electric-discharge tubes, (P.), B., 333, 377, 1052. Electric resistance having a negative temperature coefficient, (P.), B., 417. Obtaining photographic contrasts and sensitive layers therefor, (P.), B., 717. Arrangements for use in electrochemical processes, (P.), B., 747. Mercury-vapour electric-discharge tubes, (P.), B., 798. Electricdischarge tubes and screens for use therein, (P.), B., 892. Oxide[-coated plated-tungsten] cathodes for electricdischarge tubes, (P.), B., 939. Treating residual gases of superphosphate manufacture, (P.), B., 1037. Magnetic materials [ferronickel alloys], (P.), B., 1048. Fluorescent layers [for monochromatic light], (P.), B., 1057. Coating of articles such as electrodes and other parts of electric-discharge tubes, (P.), B., 1164. Photo-electric cells, (P.), B., 1164. Device comprising an electric mercury-vapour discharge tube and a red-fluorescent layer, (P.), B., 1214. Light-sensitive layers incorporating diazonium compounds, (P.), B., 1236.
 - De Boer, J. H., and Dippel, C. J., providing a carrier with a light-sensitive substance, (P.), B., 172.

N. V. Philips' Gloeilampenfabrieken, Geel, W. C. van, and Emmens, H., dry rectifier, (P.), B., 284. Electrical condenser, (P.), B., 377.

Liempt, J. A. M. van, and Leydens, P., flash-light lamp, (P.), B., 507.
V. "Solopol" Ingenieur-Bureau tot

Exploitatie van het System Polysius. See Lellep, O.

N. V. Splendor Gloeilampenfabrieken, [twinfilament] electric incandescence lamp, (P.), B., 284. N. V. Vereenigd Industrieel Bezit No. 7,

artificial leather, (P.), B., 187.

N. V. Vereenigde Fabrieken van Stearine, Kaarsen en Chemische Producten, separation of mixtures of oily or waxy substances according to the countercurrent principle, (P.), B., 1189.

Nabar, M. V., and Wheeler, T. S., kinetics of heterogeneous organic reactions. II. Reaction between benzyl chloride and solid silver nitrate in the presence of

inert diluents, A., 1346.

Nabenhauer, F. P., substituted benzyl-carbinamines [β -phenylethylamines], (P.), B., 874.

and Smith, Kline, & French Labs., oleate[s] of benzylcarbinamines, (P.), B., 1129.

Nabholz, J., evaluation of enzyme bating materials [for hides and skins] by means of shrunken collagen fibres, B., 339.

Nabi, A. A., pantocaine L, A., 757. Naboko, S. I. See Meniajlov, A. A.

Nachmanovitsch, M. I., and Dvernitzki, V. P., effect of lime on stored beet juice, B., 423.

Nachmansohn, D., and Marnay, A., action of acetylcholine on formation of lactic acid and decomposition of phosphagen in isolated muscle of the frog, A., 757.

Wajzer, J., and Lippmann, R., action of pilocarpine on formation of lactic acid and breakdown of phosphagen in isolated frog's muscle at rest, A., 376. Effect of sympathomimetic and parasympathomimetic substances on the chemical processes producing the energy of muscular contraction. I. Effect of adrenaline, pilocarpine, and potassium on the formation of lactic acid and decomposition of phosphagen, A., 1295.

Wajzer, J., and Marnay, A., action of potassium on formation of lactic acid and breakdown of phosphagen in isolated muscle of the frog, A., 372. See also Debré, R.

Nachtigall, E. See Müller, W.J. Nachtman, J. S., plating steel [with tin], (P.), B., 459.

Nacken, R., and Mosebach, R., system CaO-SiO₂-H₂O. II., A., 160. System CaO-Al₂O₃-H₂O. I. and II., A., 161, 798. Systems CaO-Al₂O₃-CaCl₂-H₂O and CaO-SiO₂-CaCl₂-H₂O, A., 1070. Nacle, J. See García-Blanco, J.

Nadai, A., thin-walled hollow bodies from

cellulose esters, artificial resins, and similar plastics, (P.), B., 608.

Nadeau, G. F., and Branchen, L. E., titration of amino-acids in glacial acetic acid solution, A., 353.

See also Eastman Kodak Co.

Nadj, M. M. See Kozeschkov, K. A. Nadkarni, D. R., and Wheeler, T. S., glycerol ethers of resacetophenone, A.,

Nadler, S. B. See Thompson, W. O.

Naedler, V., quantitative spectral analysis under variable discharge conditions, A.,

Naëder, M., fusion welding, (P.), B., 1046.

Naef, \hat{R} . See Karrer, P.

Nachring, $E_{\cdot,\cdot}$ anti-foaming agents in the

Sugar industry, B., 854.
Näsänen, R. See Sihvonen, V.
Naeser, C. R. [with Hopkins, B. S.], rare earths. XLVI. At. wt. of gadolinium, A., 5.

Naeser, G., specific heat of iron carbide, Fe₃C, A., 149. Thermal decomposition of iron carbide, Fc₃C, A., 161. Combined colour pyrometer with comparison lamp, B., 815. See also Wever, F.

Naffziger, T. R., production of insulation board; commercial production of refrigeration board and press board,

B., 491.

See also Wingfield, B.

Naftel, J. A., use of the quinhydrone with the glass electrode in determining redox capacity of soils, B., 514.

and Yoder, R. E., determination of lime requirement of soils by "casorption"

studies, B., 514.

Nag, D. C., correlation between specific gravity, chemical constitution, and condition of formation of minerals and rocks. A., 449.

Nagai, I. See Minatoya, S.
Nagai, S., products of hydrothermal reaction on clayey substances. II., V.,

and VI., B., 370, 694, 1094.
and Fukai, K., magnesium silicates;
steatite. II. and III., B., 60.

and Inone, G., magnesium silicates; steatite. IV.—VI., B., 370, 497.

Matsuoka, K., and Nomi, K., expansion and corrosion of hardened mortar of cements. II., B., 148. Mixed Portland cements, B., 372.

and Nomi, K., ore cement or iron cement. IV. and V., B., 193, 372. Expansion and corrosion of hardened mortars of various cements. III., B., 695.

Nomi, K., and Inone, K., ore cement or

iron cement. VI., B., 991. and Suzuki, Takamura, products of hydrothermal reaction on clayey substances. III. and IV., B., 370, 454.

and Takahara, M., effects of fluorides on thermal synthesis of calcium silicates. I., A., 806. Effects of various fluorides on the thermal combination of Portland cement raw mixture, B., 1042. See also Jo, M.

Nagai, Y. Seo Maki, T.

Nagano, M., and Fujihira, S., electrolytic etching process. IV. Application to the half-tone printing plate, B., 555. and Hudihira, S., electrolytic etching

process [for copper half-tone blocks], B., 1103.

Naganuma, S. See Shikata, M.

Nagao, S., effect of therapeutic agents in animals with hepatic damage caused by phosphorus, A., 635. See also Otomo, Y.

Nagao, Y. See Tatsumi, M. Nagaoka, Hantaro, and Mishima, T., excitation of the hydrogen lines H_a , H_β , H, by ultra-short electric waves, A., 653.

Nagaoka, Hiroshi, determination of colloidosmotic pressure, A., 494. Buffering power of hamoglobin denatured by heat, Ā., 745.

Nagasaki, A. See Fujise, S. Nagata, S. See Yoshida, U.

Nagatkin, I. G., desorption of gases from aqueous solutions into air, A., 790.

Nagaya, K., Yamazoye, S., and Nakamura, Sakji, glyoxalase and its co-enzyme. II. Kidney-glyoxalase, A., 895. Nagel, A. See Riesser, O.

Nagel, K. See Lange, E.

Nagel, P. See Prytz, M.
Nagel, R. See Rosenthal, F.
Nagel, R. H. See Groggins, P. H.

Nagel, T., bituminous coal for higher temperatures in open-hearth furnaces,

and Carburetted Gas, Inc., gas process,

(P.), B., 583.

Nagel, W., and Baumann, E., shellac.

VIII. Shellac films, B., 751.

and Mertens, W., shellac. IX. Constitu-

tion of aleuritic acid, A., 1361.

Nagelschmidt, G., lattice shrinkage and structure of montmorillonite, A., 1450. Nagrodski, I. A. See Nikitin, N. I.

Nagy, M., and Straub, J., bromide content of blood in mental disease, A., 506. Nagy, R., and Tottingham, W. E., blacken-

ing of potatoes during cooking due to lessened protein stability, B., 393.

Naherniac, A., temperature dependence

of absorption spectra of alcohols in the near infra-red, up to and above the

critical point, A., 545.
Nahmias, M. E., artificial radioactivity of tin, A., 659.

and Walen, R. J., artificial radio-elements, A., 1045. Short periods in artificial radioactivity, A., 1173.

Nai, A., short-fibre rayon yarns, (P.), B., 1201.

Naieker, K. See Schwab, G. M. Naiditch, I. M. See Guelpérine, N. I.

Naidu, R., induced radioactivity of nickel and tin, A., 659.

and Siday, R. E., β -ray spectra of induced radioactive elements resulting from neutron bombardment, A., 403.

Naidu, S. R. See Newcomb, C. Naik, K. G., and Mehta, B. V., mercury acetamido as a mercurating agent.

II. Mercuration of phenols, A., 871. and Vaishnav, S. A., interaction of sulphur dichloride with substances containing the reactive methylene group. II., A., 600. Interaction of thionyl chloride with substances containing the reactive methylene group.

V., A., 601.

Naik, Y. G. See Tawde, N. R.

Naiman, I. M., Troitzki, N. D., and

Daniushevski, J. G., denitration of
nitrocellulose in process of centrifugal separation from the acid, B., 14.

Nair, K. R. See Damodaran, M. Naito, I. See Sato, K.

Najarian, H.K. See Weaton, G.F.Nakabayasi, K., nuclear theory, A., 7. Nakada, B., total protein, globulin, and

albumin fractions of peripheral lymph, A., 98. Fibrin content of lymph, A., 98. Nakada, T., function of platinum in measuring high temperatures, B., 326.

Nakagawa, I., growth and basal metabolism. IV. Changes in basal metabolism of children during the year, A., 753.

and Kawamo, K., metabolism in children doing muscular work. I. Effect of racing on urinary constituents in boys, A., 102.

Nakagawa, S. See Kikuchi, Scishi, and Nishikawa, S.

Nakaguchi, S. Sec Ueno, S.

Nakahara, H. See Nakashima, T.

Nakahara, W., Inukai, F., Kato, S., and Ugami, S., dietary requirements for lactation. V. Presence of a second lactation factor in yeast, A., 766.

Inukai, F., and Ugami, S., dietary requirements for lactation. IV. Nature of factor L, a specific dietary factor for lactation, A., 227, 624.

See also Tokuyama, S., and Toyoda,

Nakahori, K., enzymes in uterine cancer. II. Lipase and lecithinase. III. Ester-IV. Invertase. V. Antitrypsin, A., 100.

Nakai, T., and Fukami, Y., alumina, A., 1079. Change of inner structures of silicious materials by heat treatment. II., B., 989. Systems composed of silica, alumina, and magnesia. I. and II., B., 1041. Inner structures of highaluminous porcelains and refractory materials, B., 1094.

Nakajima, K., and Sakurada, S., glue and glueing. II. and III., B., 1114.
Nakamiya, Z., additive product of carotene

with maleic anhydride, A., 855.

Nakamoto, M., and Sakata, T., refractory materials. IX. Conditions of using pyrometric cones, B., 497.

See also Matano, C.

Nakamura, A. See Tsuchida, R.

Nakamura, B., and Nakamura, O., vitamin-C in the lens and aqueous humour in human cataract, A., 530.

Nakamura, E., manurial value of nitrogen, phosphate, and potassium, B., 246.
Nakamura, H., and Kuroda, K., mechanism

of hæmolysis from the point of view of active mass in heterogeneous systems, A., 1136.

Nakamura, K., change of elastic parameters of single crystals of iron by heating, A., 1325.

Nakamura, O. See Nakamura, B. Nakamura, S. See Ueda, Y.

Nakamura, Saiki, fabrication of monel metal in chemical equipment, B., 64.

Nakamura, Sakji. See Nagaya, K. Nakamura, T., bacterioxanthophyll, the yellow pigment of Sarcina lutea, A., 1028.

Nakamura, Y., relation of protein coagulation to oxidation-reduction potential, A., 360.

Nakanishi, K., glass-silvering solution. I., B., 192

Nakano, T., yolk-sac vessels of the chick embryo. IV. and V., A., 108. Nakao, T. See Sasaki, N.

Nakashima, T., Nakahara, H., and Sakurada, I., velocity of nitration of cellulose fibre by acid mixtures of various compositions, B., 448. and Negishi, M., spectrographic investig-

ation of cellulose derivatives. I. Ultra-violet absorption of different cellulose fibres. II. Swelling of cellulose acetates by acetone. III. Swelling of cellulose acetates by benzene. IV. Influence of softening agents on transparency to ultra-violet light, B., 689.

Nakashizuka, S. See Okada, T.

Nakasone, C., chemical studies on methods of mulberry culture for young silkworms, A., 257.

Nakata, H. Sec Ichihara, K., Kotake, Y., and Kotake, Y., jun.

Nakatsuchi, A., sulphur compounds of terpenes. VI. Action of gold chloride on $C_{10}H_{18}S$ ($\rightarrow C \cdot S \cdot C \leftarrow type$). VII. Action of gold chloride on $C_{10}H_{18}S$ ($\rightarrow C \cdot S \cdot C \leftarrow type$) at higher temperature. VIII. Action of gold chloride on thick-result. Action of gold chloride on thioborneol and thiocamphor. IX. Action of gold chloride on terpene sulphur compounds, A., 206.

Nakatsugawa, N., influence of different hormones on $p_{\rm H}$ of blood-plasma. II. Relation between thyroid and insulin. III. Influence of adrenals. IV. Relation between adrenaline and thyroid and V. Inbetween adrenaline and insulin. fluence of the gonads, A., 642. Effect of injection of potassium cyanide on $p_{\rm H}$ of blood-plasma especially in relation to certain hormones. I. Effect of potass-II. Relation to ium on plasma- $p_{\rm H}$. thyroid. III. Relation to insulin, A., 1148.

Nakatsuka, Y., bis-8-hydroxyquinoline inner complex salt of bivalent silver, A., 613.

and Iinnma, H., bisdimethylglyoxime diamine cobaltic salts and their configuration, A., 598. Attempts to prepare [optically] active complex salts containing an asymmetric nitrogen atom, A., 979. Complex chemical ring systems with para-linkages. I. Copper derivatives of bis-p-hydroxybenzylidene- and bis-vanillylidene-ophenylenediamine, A., 987.

Nakaya, U., and Yamasaki, Fumio, pre-liminary stages of spark formation in various gases by the use of the Wilson

chamber, A., 655. Nakazawa, H. Seo Yamaguchi, Y. Nakazawa, K. See Akai, S.

Nakazawa, R., and Shimo, M., effect of radium rays on fermentation microorganisms; formation of constant variants of yeasts under influence of hokutolit rays, A., 1421. Takeda, Y., and Shimo, M., micro-

organisms in saké brewing at Formosa. I. Saccharomyces, B., 249.

Takeda, Y., and Suematu, K., microorganisms of sugar-cane juice, A., 1421. Nakhmanovitsch, M. I., and Berman, S. L., pectin substances of sugar beets in

relation to sugar manufacture, B., 662. Namari, I., and Ishino, T., direct electrolytic manufacture of aluminium-magnesium alloys. I.—IV., B., 151.

Namba, M., characteristics of the activity and the peculiar product "sara-isi" of the Aso volcano, A., 1227.

Nametkin, S. S., Issaguliantz, V. I., and Eliseeva. V., synthetic perfumes from castor oil, B., 395.

Melnikov, N. N., and Gratschev, G. P., organic thallium compounds. 111. Synthesis of organic thallium compounds with simple substituents in the aromatic radical, A., 492.

and Nifontova, S. S., structure of ceresin hydrocarbons, A., 960. Structure of hydrocarbons of lignite paraffin, B., 6**2**7.

and Strugatski, M. K., homologues of the camphor group. X. Benzylidenecamphane, a dehydration product of tert.-benzylbornyl alcohol, A., 1258. Benzylidenecamphane, a product of the dehydration of tertiary benzylbornyl alcohol, A., 1513.

Nametkin, S. S., and Zaborovskaja, V., volumetric determination of unsaturated hydrocarbons in cracking benzine, B., 627.

and Zabrodina, A. S., sec.-a-nitro-4methylcamphene and 4-methyl-α-cam-

phenone, A., 1115.

Namikawa, H. See Hayashi, M.

Namikawa, T., perfect gasification of coal, B., 865.

Nand, B. K. See Kenner, J. Nandi, S. K. See Neogi, P., and Raychoudhury, S.

Nandy, N. C. See Sharma, N. L. Nanfeldt, W., and World Bestos Corp., heat-derivative[s] of China wood [tung] oil, (P.), B., 335. Nanji, H. R. See Edwards, F. W.

Nanking Central Field Health Station, purity and composition of common salt consumed in China, B., 883.

Nannestad, F., what reactions occur on addition of lime during [ore] flotations? B., 1100.

Nannfeldt, J. A. See Melin, E. Nanz, H. J. M. See Löffler, W. Napier, L. E., and Das-Gupta, C. R., hematological studies in Indians. I. Hæmoglobin determination methods, A.,

Narain, R. See Lander, P. E.

Narang, K. S., and Ray, J. N., electrolytic reduction of vasicine, A., 869, 1527. Ray, J. N., and Sachdeva, T. D., quinoline derivatives. IV., A., 1124. See also Bedi, S. S.

Narasimhamurthy, G., isoelectric point of vitamin- B_1 , A., 765.

and Subrahmanian, V., rôle of organic matter in plant nutrition. VII. Economy of carbon during decomposition of molasses in the swamp soil, B., 115.

Narath, A., treatment of [photographic] gradation problems, B., 172. Resolving power of photographic emulsions, B., 572. Determination of resolving power of photographic emulsions, B., 813.

Náray-Szabó, S. von, crystalline boron, A.,

Narayan, A. L., and Royds, T., oxygen in solar prominences, A., 769.

Narayana, N. See Sreenivasaya, M.

Narayanamurthi, D. S., and Seshadri, T. R., brucine sulphate as internal indicator in titrations with standard dichromate solution, A., 580.

Narayanamurti, D., electrical resistance of wood and its variation with moisture

content, B., 1096.

Narbut, P. P. See Kondak, M. A.

Nargund, K. S. See Phalnikar, N. L.

Narkiewicz-Jodko, K., afterglow in electrically excited mercury vapour, A., 1040.

and Ziemecki, S., cosmic-ray observations on the Atlantic Ocean, A., 919. See also Ziemecki, S.

Narrayana, B. See Dale, A. S. Narnse, T., frosting the inner surface of glass bulbs for electric lamps, (P.), B., 790.

Nasarenko, V. A. See Komarovski, A. S. Nasarov, I. N., dehydration of methylditert.-butylearbinol; fission and isomerisation of ditert.-butylethylene, A., 311. Fission and isomerisation of olefines which contain a tertiary radical, A., 311.

Nash, A. W., Hunter, T. G., and Wiggins. W. R., viscous liquids [lubricating oils], (P.), B., 869.

Nash, A. W. See Hall, F. C., Hunter,

T. G., Mayo, F., and Strang, L. C.

Nash, J. A. D., [testing the] zinc coating on galvanised iron, B., 1043.

Nash, T. P., jun. See Laug, E. P.Nashan, P., capillary behaviour of coals, B.,

Nashua River Paper Co. See Thompson,

H. L.

Nasonov, D., and Alexandrov, V. G., changes in living substance involved in the reversible transition into the dead state, A., 628.

Nassan, A., and Salah, M., carbon tetra-chloride intoxication, A., 376.

Nasset, E. S., and Pierce, H. B., effect of peptones and extracts of small intestine on secretion of succus enterious, A., 501.

Nast, L., and Vredenburg, J. C., casting of articles from synthetic resins, (P.), B., Phenol-formaldehyde condens-

ation products, (P.), B., 288.

Nasu, N., thermochemistry of titanium oxides. I. The equilibrium, 2TiO₂+ H₂ ≈ Ti₂O₃+H₂O. II. Thermochemical calculations, A., 682, 1341. Dissociation pressure of vanadium pentoxide, A., 1204.

Nataf, B. See Bonnet, R. Natanson, N. E. See Krestinskaja, V. N. Natelson, S., and Gottfried, S. P., synthesis of derivatives of s-diphenylethane related to materials occurring naturally. I. Synthesis of ring s proposed for calciferol, A., 1248. system

See also Drekter, J. J., and Sobel, A. E. Nath, B. V., disease-resistance in plants in relation to nutritional balance, B., 1012.

Nath, M. C. See Basu, K. P. Nath, N. S. N., neutrinos and light quanta,

A., 920. See also Born, M., and Raman, (Sir) C. V.

Nathan, W. S., photo-activation of the carbonyl group in prototropic reactions A., 591.

See also Baker, J. W., and Ingold, C. K. Nathanson, J. B., and Seifert, H. S., optical properties of sputtered metal films, A., 1188.

Natin, I., and Da Rin, C., hyperglycamia in diphtheria, carbohydrate metabolism, and treatment with glucose and insulin, 505. Inorganic phosphorus in diphtheria, A., 505.

National Acme Co., centrifugal separators, (P.), B., 4.

Nat. Aluminate Corporation, method and material for treating boiler feed-water, (P.), B., 1024.

McKinley, J. M., and Carter, W. K., refractory clay articles and patching cements, and processes of forming ceramic refractories of the argillaceous type and of bonding green argillaceous refractory ware, (P.), B., 498. See also Carter, W. K.

Nat. Aniline & Chemical Co., Inc., and Cotton, W. J., arylation of peri-acid, (P.), B., 55. α-Naphthol, (P.), B., 1196.

Crowell, J. H., Ogilvie, J., and Rogers, D. G., [acid] anthraquinone colouring

matters, (P.), B., 879. and Davis, A. H., jun., electrometric determinations, (P.), B., 377.

and Dongen, D. W. van, decanting indigo

slurries, (P.), B., 879. and Flett, L. H., precipitation of metal halide additive compounds of diazonium halides, (P.), B., 488. Nitroarylamines [p-nitroaniline], (P.), B., 921.

Nat. Aniline & Chemical Co., Inc., and Hess, R. W., aralkyl trithiocarbonates, (P.), B., 1197.

and Jewett, J. E., electrolytic process and apparatus, (P.), B., 605.

and Kern, J. G., vat dye compositions,

(P.), B., 733. and Kiernan, H. G., coloured rubber,

(P.), B., 1169.

and Kyrides, L. P., [acid] triarylmethane dyes, (P.), B., 827. Aromatic ether of glycol [resorcinol hydroxyethyl ether], (P.), B., 1083.

and Lauer, L. M., desulphonation of diaminodiphenylamine-2-sulphonic acid compounds, (P.), B., 1196.

and Mow, H. G., separation of 1:8naphthylaminesulphonic acid, (P.), B., 445.

and Payne, R. B., oil-soluble azo-dyes, (P.), B., 877.

Payne, R. B., and Conrad, K. F., colouring matters derived from pyrazolones [pigments for resins, lacquers, etc.], (P.), B., 827.

and Riegler, R., recovery of vapour-phase oxidation products, (P.), B., 633. Phthalic anhydride recovery, (P.), B., 975.

and Rogers, D. G., fluid pastes of anthraquinone compounds, (P.), B., 1145.

and Thornton, I. T., control of temperatures in chemical reactions, (P.), B.,

and Wood, R. O., iron oxido pigment, (P.), B., 287. Basic aluminium sulphate, (P.), B., 368.

and Zwilgmeyer, Z., [a]-acctotricarballylic esters, (P.), B., 1197.

Nat. Carbon Co., Inc., articles from plastic compositions containing vinyl resins, (P.), B., 111. Primary batteries, (P.), B., 891.

Sec also Heise, G. W., Schumacher, E. A., and Smith, C. N.

Nat. City Bank of Cleveland. See Sommer, W. H.

Nat. Cornstalk Processes, Inc. See Hartford, C. E.

Nat. Dairy Products Corporation, Inc., Research Laboratories of. See Hornemann, H. C.

Nat. Electric Heating Co., Inc. See Carleton, R. A.

Nat. Fireproofing Corporation. See Foster, H. D.

Nat. Grain Yeast Corporation. See King, H. L.

Nat. Lead Co. Sec Dittmer, J. C., Hiers, G. O., and Stewart, A.

Nat. Listing Exchange. Sec Boyer, J. C. Nat. Mining & Reduction Co. See Vandercook, A. E.

Nat. Pigments & Chemical Co. Sec Culling, C. R., and Fisher, E. E.

Nat. Processes, Ltd., and Gibson, A. R., oxidation of solutions and suspensions,

(P.), B., 400. Gibson, A. R., and Robson, S., electrolytic production of lead, (P.), B., 1050. Nat. Radiator Corporation. See Jephson, A.C.

Nat. Smelting Co., Ltd., Electrolytic Zinc Co. of Australasia, and Evans, H. L., bearing-metal alloys, (P.), B., 1047.

See also Bonsack, W., Frost, J. G. G., Gibson, A. R., and Lewis, P. S. Nat. Standard Co., coating of metal [e.g.,

steel with zinc], (P.), B., 604. Nat. Tube Co. See Chancellor, and Davis, W. F.

Nat. Vermiculite Products Corporation. Sce Miner, C. S.

Natta, F. J. van, Hill, J. W., and Carothers, W. H., ϵ -hexolactone, A., 314.

Natta, G., and Baccaredda, M., interstitial chemical compounds; structure of antimony pentoxide hydrate and of some antimoniates, A., 926. Examination of cellulose by electron diffraction, A., 1187.

and Rigamonti, R., examination by electron beams of some aliphatic

esters, A., 554.

Nattan-Larrier, L, and Grimard, production of a [growth-]inhibiting substance in tissue cultures, A., 1289.

and Tscherniakofsky, P., chemical examination of moranylised or liquoidised blood, A., 224.

Natucci, G., calcium, phosphorus, and the alkali reservo in rachitic osteopathy produced by strontium, A., 1292.

Natural By-Products Corporation. See Claret, R. J.Natural Products Refining Co.

Sce Vetter, J. J.

Nauenburg, G. See Flotow, E. Naugle, J. J. See Wickenden, L.

Naugolnikov, B. I. See Malinovski, A. E. Naumann, A., photo-electric primary

current in an alternating field in potassium bromide crystals containing colour centres, A., 1320.

Naumann, E., neutralisation of excess carbon dioxide in town's water, B., 398. Attack of hard-lead pipes by tap-water, B., 766. Cleaning of water mains with acid and dangers to health involved, B., 1070.

and Naumann, K., determination of $p_{\rm H}$ of water, B., 78.

Naumann, H. N., bile pigments. I. Ehrlich's test for urobilinogen and Schlesinger's reaction for urobilin. II. Test for bilirubin in urine: detection in normal urine. III. Determination of urobilin and urobilinogen in urine and fæces, A., 625, 1013.

Naumann, K. See Naumann, E. Naumov, N. I., choice of method for cleaning coal from the Don basin,

Naumov, V. I., high-chromium cast iron,

Naumova, A. I. See Feldman, J. A., and Usanovitsch, M.

Naumova, L. I. See Rubin, B. A. Naundorf, A., determination of sodium in fertilisers, B., 114.

Naunton, W. J. S. See Cassie, A. B. D. Naves, Y. R., antiseptics with a pine oil base, B., 699. Presence of methyl alcohol and formaldehyde in essential oils and in solutions of essential oils in ethyl alcohol, B., 907.

and Igolen, (Mme.) M. G., oxidation with selenium dioxide, A., 51.

Navias, L., solid reactions at 1000—1200° between magnesium oxide or beryllium oxide and nickel, iron, chromium, manganese, and their oxides, A., 438.

Naville, M. See Fiessinger, N. Nayar, A. P. B. See Patel, J. S. Naylor, W. H. See Sivertz, V.

Naylor, Ltd., J. H., and Smith, J. E., detection of the presence of combustible gases in the atmosphere, (P.), B., 1031.

Nazarenko, V. A., and Granovskaja, A. M., bismuth in Cottrell dust of sulphuric acid factories, B., 883.

Nazarjanz, B., influence of phosphorus poisoning on synthesis of mentholglycuronic acid. II., A., 1148.

Nazarov, I. N., dehydration of methylditert.-butylcarbinol; fission and isomerisation of di-tert.-butylethylenc, A., 588. Fission and isomerisation of olefines involving a tertiary radical, A., 819. Metal ketyls of the aliphatic series. IV. Action of sodium on tert.-butyl tert.-amyl and on tert.-butyl tert.-hexyl ketones, A., 825.

Nazarov, S. A., preparing varnish driers from the benzene "overhead," B., 483. and Dobkin, I. E., recovery of acid sludge from treatment of the "benz-ene" and "toluene" fractions of products of pyrolysis of crude oil, B., 676.

and Remiz, E. K., preparation of hexyl alcohols from cracked products, B.,

1188.

and Tschain, S. S., determining toluene in pyrogasoline and vapour-phasecracked gasoline, B., 483. Preparing isopropyl acetate by the action of Kontakt (petroleum sulphonic acids) as catalyst, B., 631.

Nazarov, V. G. See Livschitz, I. A. Nazarova, Z. See Tsukervanik, I.

Neal, C. J., apparatus for treating gilsonito ores, (P.), B., 593.

Neal, D. C., effect of ammonia-nitrogen on growth of cotton root rot, Phymatotrichum omnivorum, in field laboratory experiments, B., 116.

Neal, O. R., and Walker, R. H., oxidation of glucose by Rhizobium meliloti, A., 114. Physiology of Rhizobium. IV. Utilisation of carbonaceous materials. A., 114.

Neal, W. M., Rusoff, L. L., and Ahmann, C. F., alkaloid from Crotalaria speciabilis, Roth., A., 350.

See also Bryan, O. C. Neale, A. E. T. See Internat. Latex Processes.

Neale, C. F. See Kronsbein, J.

Neale, P. O., relationship between moisture and quality in New Zealand cheese, B., 345.

Neale, R. C. See Forbes, J. C.

Neale, S. M., absorption of sodium hydroxide by cellulose, A., 154. Direct dyeing of cellulose, B., 16. Modifications of cellulose, B., 734. Mol. wts. of celluloses, B., 828. Absorption of dyes by cellulose, B., 881. See also Hanson, J.

Near, C. Seo Sullivan, B.

Near, H. B., Pacini, A. J., Crosley, R. W., Gerth, M. M., Breidigam, F. T., Kelly, J. D., and Libby, McNeill, & Libby, extraction of mucinous substance from plants, (P.), B., 757.

Neber, M., fission of proline in the animal organism, A., 885. Oxidative deamin-

ation of amino-acids, A., 885.

Necheles, H., Frank, R., Kay, W., and Rosenman, E., effect of acetylcholine

on the blood-flow through the stomach and legs of the rat, A., 1414.

Levitsky, P., and Maskin, M., autodigestion. VI. Digestion of living tissues by trypsin, A., 1556.

Nederbragt, G. W., generation and absorption of gas in insulating oils under the influence of an electric discharge, B., 1030.

See also Michels. A.

Nedsvedski, S. V., rôle of bile acids in enzymic synthesis of cholesterol, A., 895. Nedzel, A. J., influence of diet on toxicity of ethylhydrocupreine hydrochloride, A.,

Needham, D. M. See Baldwin, E.

Needham, J., Brachet, J., and Brown, R. K., origin and fate of urea in the developing hen's egg, A., 886.

Nowinski, W. W., Cook, R. P., and Dixon, K. C., mechanism of carbohydrate breakdown in early embryonic development, A., 1411.

See also Brachet, J.

Needham, L. W., treatment of [coal-] washery water: practical aspects of flocculation, B., 1185.

Neeff, A. See Reichel, L.

Néel, L., paramagnetism of nickel alloys. II. Magnetic properties of the metallic state and energy of interaction between magnetic atoms, A., 420. Theory of volume anomalies for ferromagnetic substances, A., 555. Ferromagnetic saturation moment, A., 668. Influence of thermal variation of molecular field on the Curie constant, A., 671. Theory of constant paramagnetism; application to manganese, A., 1188.

Neelakantam, K., Rao, R. H. R., and Seshadri, T. R., pigments of cotton flowers. I. Cambodia (Gossypium hirsutum). II. Uppam (Gossypium herb-

aceum), A., 124, 395.

and Seshadri, T. R., pigments of cotton flowers. III. Karunganni (Gossypium indicum), A., 1387.

Neely, G. L., extreme-pressure lubricants testing, B., 1188.

Noes, A. R., and Hungerford, E. H., lowpurity beet-house syrups; crystallisation rates of sucrose, B., 1119. Nefedieva, O. V. See Karelin, A. I.

Neff, H. See Gossner, B.

Neff, J. W., and Johnson Co., M. C., safety paper, (P.), B., 589.

Negelein, E, and Gerischer, W, preparation of intermediary enzyme from yeast, A., 638.

and Haas, E., modo of action of intermediate enzymes, A., 380.

Negishi, M. See Nakashima, T.

Négrosco, T., and Crook, W. J., equilibrium relations of iron oxides in furnace slags, B., 838.

Neher, H. T., acrylic resins, B., 704. Neher, H. V., and Harper, W. W., highspeed Geiger-counter circuit, A., 1084.

Nehlep, G., Jost, W., and Linke, R.,

"electrolysis" of a solid gold-copper

alloy, A., 571.

See also Jost, W. Nehrbas, H. G. See Henkel, E.

Nehring, E., and Bothe, F., keeping qualities of artificially acidified vegetable preserves, B., 472.

Nehring, K., influence of reaction and

manuring on composition and digestibility of meadow grasses. I. Influence of reaction, B., 473.

and Möbius, H., action of cestrogenic substances on plant growth, B., 708.

Neiger, R., and Neuschul, P., photochemical reactions of iron gluconates, A., 1473.

See also Hermann, S.

Neigus, I. See Wilhelmj, C. M.

Neill, D. S., degumming of ramic and other similar fibres, (P.), B., 689.

Neill, H. R. See Linen Industry Res. Assoc. 10

Neill, J. C., and Brien, R. M., control of pink cob-rot of maize, B., 116.

Neilsen, E. See Veibel, S.

Nelman, J., and Meschalkina, L., oiling viscose yarn, B., 925.

Neiman, \check{M} . See under Neuman, M. B. Neimark, I. E. See Poljakov, M. V.

Neimark, M. E., rapid determination of water content of coal mixtures, B., 5.

Neimark, O. M. See Gorin, J. A. Neiser, F. Sec Bernhauer, K.

Nejman, R., determination of sodium sulphite in viscose, B., 829.

Nekam, L., jun., and Ottenstein, B., cholesterol in xanthomatosis, A., 753.

Nekludov, V., experimental epilepsy. III. Alteration in the protective quality of serum in epileptifôrm convulsions produced by camphor, A., 505.

Nekrasov, Z. I., direct reduction of man-ganese ore, B., 24.

Nekrassov, B. V., properties of ions. I. Electronic homologues in the periodic system. II. Periodic system and the properties of ions, A., 401.

Nekrassov, N., and Schneerson, A., decomposition of SO₂ through electron

impacts, A., 172.

and Stern, I., behaviour of oxygen on electron bombardment, A., 1439. See also Abeshaus, H.

Nekrassova, O. V., and Platonov, M. S., determination of hydrogen, carbon monoxide, and methane by means of a highly active palladium catalyst, B., 931.

See also Knorre, G. F., and Platonov, M. S. Nekritseh, M. I., and Rivlin, I. I., preparation of sodium sulphide by means of gaseous reducing substances, B., 100.

See also Budnikov, P. P. Nekruitui, S. S., and Grozin, B. D., effect of low temperatures on structure and mechanical properties of antifriction alloys, B., 199.

Neley, A. H. See Huston, R. C.

Nélis, P., existence of a staphylococcal

paratoxin, A., 641. Nellensteyn, F. J., and Brand, J., asphalt found in Mesopotamian excavations, B.,

Neller, J. R., phosphorus content and buffer capacity of plant sap as related to physiological effect of phosphorus fertilisers in fibrous low-moor peat, B., 292. Nelms, J. C., coal-treating process and com-

pound, (P.), B., 968. Nelson, A. F. See Forbes, G. S.

Nelson, B., mercury derivatives of gallein and cœrulein, (P.), B., 860.

Nelson, C. S., Sharpe, D. B., and Carborundum Co., [rubber-bonded] abrasive article, (P.), B., 147.
Nelson, C. W., padding [cotton fabric] with

dispersions of unreduced vat dyes, B., 57. Nelson, D. H., rapid mixer, A., 583. Preparing samples of butter for analysis, B., 520.

Nelson, E. F. See Egloff, G., Universal Products Co., and Watson, K. M.

Nelson, E. M., international vitamin standards, A., 117. See also Horn, M.J.

Nelson, G. F., [hardening] treatment of metals [steel], (P.), B., 376. Low-carbon steel, (P.), B., 1045.

Nelson, H. A., zinc sulphide pigments for internal paints, B., 243.

Nelson, H. H., and Becker, Guillaume,

[waterproof] paper, (P.), B., 786.

 $\begin{array}{ll} \textbf{Nelson}, J. \ F. & \textbf{See Gilman}, H. \\ \textbf{Nelson}, J. \ H. & \textbf{See Wright}, \ W. \ D. \\ \end{array}$ Nelson, J. M. See Graubard, M., and Wagreich, H.

Nelson, J. W. See Eckles, C. H. Nelson, L. M., jun. See Lermann, W. W.Nelson, M. E., and Werkman, C. H., dissimilation of glucose by heterofermentative lactic acid bacteria, A.,

Nelson, O.J., and Oileo Corp., apparatus for treating petroleum, (P.), B., 9.

Nelson, O. L., paint-mixing machine, (P.), B., 244.

Nelson, P. M., and Swanson, P. P., growth, reproduction, lactation, longevity, and hamoglobin formation in albino rats on meat diets contrasted with their response on the Steenbock stock diet and on the Sherman milk diet, A., 102. Influence of experimental technique during preliminary period in vitamin-A determinations on the response of the test animal to supplementary feeding of the vitamin, A., 118.

Swanson, P. P., and Haber, E. S., vitamin-A, -B₁, -C, and -B₂ contents of canned tomatoes, B., 42.

See also Haber, E. S., and Swanson, P. P.

Nelson, R. A. Seo Kunsman, C. H. Nelson, R. E. See Hersh, J. M., Rogers, A. O., and Sparks, C. E.

Nelson, V. E. See Feaster, J. F., Keil, H. H., and Kempf, C. A.

Nelson, W. E. See Cullen, G. E.Nelson, W. L. See Cretcher, L. H.

Nelson, W. O., and Gallagher, T. F., anterior pituitary. IV. Effect of male hormone preparations on the anterior pituitaries of gonadectomised male and female rats, A., 526. Effects of androgenic substances in the rat, A., 1428.

Turner, C. W., and Overholser, M. D., effect of lactogenic hormone preparations on blood-sugar level of rabbits and monkeys, A., 251.

See also Weller, D. Nelz, G. See Dungern, M. F. von.

Nemec, A., chemical properties of scab-infected potato soils, B., 35. Effect of raking-off surface litter on composition of pine forest soils, B., 383. Determination of phosphate requirement of soils by von Sigmond's nitric acid method, B., 384. Determination of the potash requirement of soils by von Sigmond's method, B.,

Němec, B., rarer elements in the ash of Polyporus fomentarius and its host trees, A., 1035.

Nemec, V., formation of deposit in aqueous extracts of vegetable tanning agents, B., 382.

See also Kubelka, V.

Némedy, I., relation between sp. gr. and lead content of basic lead acetate solution, B., 883.

Nemenov, L. M. See Kurtschatov, I. V. Német, A., changes of structure of crystals in an electric field, A., 412. Compensation apparatus and quantum fluctuation, A., 412

Nemilov, V. A., examination of alloys of platinum metals with other metals, by physico-chemical analysis, B., 1158.

and Rudnicki, A. A., physicochemical investigation of gold-manganese alloys, A., 152.

Nemilov, V. A., and Voronov, N. M., platinum-antimony alloys, A., Platinum-rhodium alloys, A., 419.

Nemirovitsch, M., antifreeze mixture for automobile radiators, B., 719.

Nemitz, P. See Salmang, II.

Nemtzov, M. S., and Poletaev, A. V., pyrogenic condensation of hydro-carbons. V. Kinetics of polymerisation of hexanes, A., 1208. Sce also Diner, I. S.

Nenitzescu, C. D., and Cioranescu, E., ring enlargement during catalytic dehydrogenation of a cyclopentane derivative, A., 831. Reactions catalysed by aluminium chloride. XV. Preparation of saturated ketones by addition of acid chlorides to olefines and hydrogenation by aluminium chloride, A., 1379. and Gavat, I., Cannizzaro reaction, A.,

74.

and Solomonica, E., phenylbenzoyl-diazomethane, A., 605. and Vantu, G. G., ketones obtained by condensation of acetyl chloride with

saturated hydrocarbons in presence of aluminium chloride, A., 205. See also Hopff, H.

Neogi, P., and Mandal, K. L., resolution of co-ordinated inorganic compounds into optical isomerides; co-ordinated cadmium compounds with racemic and active propylenediamine, A., 974

and Nandi, S. K., gallium compounds.

I., A., 1217.

Neogi, S., determination of rape or mustardseed oils, and detection of oils used to adulterate them, B., 1215.

Neon Research of Connecticut, Inc. See Mitscherling, W. O.

Nepomniatschaja, M. P., diffusion juice preserved with lime, B., 662.

Nepveux, F. See Goiffon, R., and Joanid,

Nerdel, F. See Neunhoeffer, O.

Nernst, W., stellar theory, A., 133. Applications of astrophysics to physics and chemistry, A., 411.

Nersesov, L. D., Kaminer, B. B., Gurvitsch. B. L., and Fomenko, L. A., methods for reducing the diameter of vacuum towers and increasing the yield of the lower fraction, B., 1183.

Nesbitt, C. E., disintegration of firebrick linings in iron blast furnaces, B., 60.

Neseni, R., physiology of fur-bearing animals. I. and II., A., 1286.

and Hinke, F., clinical-chemical detection of changes in the nitrogen ratio

of cows' milk, B., 1123.

Nesmejanov, A. N., and Freidlina, R. C. organic compounds of mercury. XIII. Preparation of a new type of asymmetric organic mercury compounds as proof of the structure of alkanoland β -alkyloxyalkyl-mercuri-salts, A., 1132

Kozeschkov, K. A., and Klimova, V. A. [with Gipp, N. K.], aryldiazonium chloride-heavy metal chloride double salts and preparation of organotin compounds through diazo-compounds, A., 66.

and Schatzkaja, R. K., derivatives of allyl ethers of phenols having mercury substituted in the nucleus, A., 218.

See also Freidlina, R. C., and Kozeschkov, K. A.

Nespor, E., thyroid and vitamin-C reserves, A., 1031.

Nesselmann, K., and Siemens-Schuckertwerke A.-G., device for cooling a heat generator by means of a circulating auxiliary liquid, (P.), B., 576.

Nesselschtraus, G. Z., thermal transformations in alloys, B., 744.

Nesterov, N. P., precipitates forming in solar oil, and their formation, B., 966.

Nesterova, V. I., Petin, N. N., and Toptschieva, K. V., equilibria and surface phenomena in the system water-formic acid-phenol, A., 25.

Nestler, R. B., Byerly, T. C., Ellis, N. R., and Titus, H. W., new factor, not vitamin-B2, necessary for hatchability,

A., 1431.

Nesty, $G.\ A.$ See Pinkney, $P.\ S.$ Nesvadba, $V.\ V.$ See Sergievskaja, $S.\ I.$

Neter, E., production of fibrinolysin in vivo, A., 1531.

See also Witebsky, E.
Netschaeva, N., and Kolodkina, L., oxidation of sulphur dioxide in the highvoltage arc discharge, A., 808.

Netter, A. See Lévy, Max. Netter, R. See Randoin, L.

Neubauer, A., suitability of Mitscherlich pot-culture tests as a standard for the utility of other methods of soil examination, B., 898.

Neubauer, H., seedling method [for determining soil-nutrient values], B., 610.

Neubauer-Nieolini, reaction solders for aluminium, B., 1160.

Neuber, (Frl.) A. See Haraldsen, H., and Klemm, W.

Neuberg, C., and Cahill, W., complete enzymic hydrolysis of chondroitinand mucoitin-sulphurie acid, A., 378. Phytochemical reduction of triketopentane, A., 1300.

and Holmann, Eduard, hydrolysis of lactose by enzymes of liver and kidney, A., 243. and Kobel, M., conversion of rutin

into a brown pigment by tobacco enzymes, A., 110. and Schuchardt, W., synthesis of phospho-

d-tartaric acid and its decomposition by phosphatase, A., 1298.

Neuberg-Rabinovitsch, I.S. See Tiffeneau,

Neuberger, A. See Harington, C. R. Neubert, C., printing rollers, (P.), B., 654. Neubert, F. Sce Holub, L. Neuburger, M. C., allotropy of calcium,

A., 18. Lattice constants for 1936, A., 782. Precision measurement of the lattice constant of very pure vanadium, A., 1326. Precision measurement of the lattice constant of very pure tanta-

lum, A., 1326. Neudert, W., effect of various factors on the rennetting process, B., 1065.

Neuenschwander-Lemmer, N. Sco Sevag, M. G.

Neuert, H., Wilson cloud-chamber of simple construction, A., 1224.

Neufach, S. A. See Charit, A. J. Neufeld, A. H., biochemistry of bromine. I., A., 1011.

Neufeld, $J_{\cdot,\cdot}$ mathematical expression of the [magnetic] hysteresis curve, A.,

Neufeld, R. See Török, G.

Neufeld & Co., M., treatment of seeds containing oil and fat, and cereals, (P.), B., 204.

Neugebauer, H., stability of homoeopathic preparations, B., 170.

Neugebauer, K. See Cassel, H. M.

Neugebauer, T., constants of the methane molecule, A., 411. Decrease in refraction of electrolyte solutions, A., 780. Calculation of the polarisation ellipsoid of a molecule, A., 1322.

Neubaus, A., copper-bearing spathic iron veins in the Bober-Katzbach Mtns.,

Silesia, A., 448.

Neuhaus, F. W., effect of fluorine on precipitation of phosphoric acid with âmmônium molybdate, A., 694.

Neuhaus, T. A., and Glidden Co., novelty [lacquer] finish, (P.), B., 1166. Neuhausen, O. E. See South, F., jun.

Neujmin, II., photodissociation of stannous chloride vapour in the Schumann region, A., 138.

See also Terenin, A.

Neuman, M.B. See Andreev, E.A., Kaulin, E., and Michailova, M. N.

Neuman, R. S., Kargin, V. A., and Fokina, E. A., potentiometric measurements in analysis of viscose solutions during ripening, B., 586. Potentiometric analysis of viscose during the maturation process, B., 979.

Neumann, A. See Abderhalden, E. Neumann, B., Kröger, C., and Iyanovski, R., system vanadic acid-cupric oxidesilicic acid as a compound catalyst in the formation of sulphuric acid,

B., 144. and Sonntag, A., dissociation pressures of nitrates and sulphates. IV. Sodium vanadates, A., 160.

Neumann, E., fillers-their employment in bituminous road construction, B., 1208.

See also Schröder, W. Neumann, F. See Hess, K.

Neumann, G., possibilities and difficulties of measuring air and gas volumes by the "inoculation" method, B., 79.

Neumann, Georg, determination of oxygen consumption of yeast, A., 112.

Neumann, H., new magnetic alloy "1040" with high initial permeability, B., 375.

Neumann, H. T., and Neumann Res. Inc., H. T., colour material, (P.), B., 652. Neumann, K. (Berlin), and Tohmfor, G.,

can the difference in density between sea- and fresh-water be accounted for by fractional distillation of the isotopic forms of water? A., 816.

Neumann, K. (Hanover), kinetic analysis of the combustion process in the Diesel

machine, B., 967.

Neumann, K. (Prag). See Hüttig, G. F. Neumann, K. E., bleaching of pulp produced from pine stumps, B., 1086.

Neumann, M. See Aivazov, B. Neumann, N. See Minibeck, H.

Neumann, R., Obogi, R., and Rogovin, S., heterogeneity of native and regenerated cellulose, B., 979.

Neumann, R. M., zinc pigments, B., 29. Neumann, W., purification of air and other

gases by centrifuging, (P.), B., 723. Neumann, Wilhelm, colorimetric and mol. wt. determination of digitalis glu-

cosides, A., 1036. See also Flury, F.

Neumann Research Inc., H. T. See Neumann, H. T.

Neumolotova, A. See Schemjakin, F. M. Neumüller, G. See Euler, H. von. Neundeubel, L. See Fischbeck, K.

Neunhoeffer, O., and Nerdel, F., reaction of carboxylic acid chlorides with metallic

hydrides, A., 69. Neuninger, E. See Rona, E. Neurad, K. See Raudnitz, H.

Neurath, H., influence of denaturation on spreading of proteins on a water surface, A., 677.

and Bull, H. B., denaturation and hydration of proteins, A., 1404.

Neus, E. See Stadler, P.

Neuschul, P. See Hermann, S., and Neiger, R.

Neustaedter, T., modification of the Frank-Goldberger blood-æstrin test, A.,

Neuweiler, W., vitamin-A and carotene content of human milk, A., 118. Content of vitamin-A in the liver of feetus and new-born, A., 764. Vitamin-C metabolism in the fœtus. I. Resorption of ascorbic acid from the placenta. II. Storage of vitamin-C in the adrenals, Thyroid function A., 1032. detection of thyroid hormone in pregnancy, A., 1302. Neuwirth, F. See Walzel, R.

Neven, L. See Rosen, B. Nevens, W. B., lespedeza hay for dairy cattle, B., 346.

and Kuhlman, A. F., method of harvesting samples of pasture forage, B., 659.

Nevgi, M. B., modified Gouy's balanco for the accurate and quick measurement of diamagnetic susceptibilities, A., 305.

See also Bhatnagar, S. S., and Mathur, R. N.

Neville Co. See Anderson, G. K.

Nevin, S., muscle chemistry in myasthenia gravis, pseudohypertrophic muscular dystrophy, and myotonia, A., 101.

Nevrey, M., and Malevinskaja, E., preparation of nitrosophenol, B., 440.

Nevros, K. I., and Zvorykin, I. A., red soils of Attica, Greece, B., 850.

New, A. A. See Standard Telephones &

New, G. A., and Gregory, T. G., gypsum stucco, (P.), B., 546. New, G. F., radiation and paint, B.,

New England Club, progress report on coatings subjected to the corrosive action of scrubber water, B., 651.

New England Mica Co. See Boughton, W. A.

New Jersey Zinc Co., Myhren, A. J., and Marquis, B., [zinc sulphide] precipitates, (P.), B., 274. Zinc sulphide

pigment, (P.), B., 559. and Grady, L. D., jun., zinc-dust paints, (P.), B., 337.

See also Broughton, W. W., Bnnce, E. H., Flynn, E. J., Ginder, P. M., Holstein, L. S., Myhren, A. J., Stutz, G. F. A., and Thompson, J. C., jun.

New York Club, pigment wetting and dis-

persion, B., 650.

Newbery, E., physicochemical properties of mercurous perchlorate solutions, A.,

Newburgh, L. H. See Freyberg, R. H. Newcomb, C., Naidu, S. R., and Varadachar, K. S., determination of mercury in viscera, A., 126.

Newell, H. D., ductility of chromium-nickel austenitic steels at elevated temperatures, B., 196.

Newell, I. L., Pike, N. R., and Ficklen, J. B., organic compounds as analytical reagents. IV. p-Nitrobenzeneazoresorcinol as a reagent for magnesium, A., 178.

See also Ficklen, J. B.

Newell, $J.\ M.$ See Cohen, M. Newell, $W.\ C.$, Purcell, $R.\ H.$, Gregory, H. S., and Ellingham, H. J. T., thermal conductivity method for following electrolytic separation of hydrogen isotopes, A., 181.

See also Mann, W. B.

Newell & Co., Ltd., E., and Moss, A. H., grinding, crushing, or pulverising machinery, (P.), B., 912.

Newhall, A. G., and Dixon, M. W., disinfesting soils by electric pasteurisation,

Newhouse, R. C., and Allis-Chalmers Manufg. Co., crushers, (P.), B., 960.

Stoll, R. E., and Allis-Chalmers Manuig. Co., crushers, (P.), B., 960.

Newington, F. H., Killner, W., and Wright, C. S., marking ink, (P.), B., 1218.

Newitt, D. M., design of vessels to withstand high internal pressures, B., 527. and Burgoyne, J. H., oxidation of aromatic hydrocarbons at high pressures. I. Benzene. II. Toluene. III. Ethylbenzene, A., 599.

and Gardner, J. B., initial formation of alcohols during slow combustion of methane and ethane at atmospheric pressure, A., 801.

Sec also Bone, W. A.

Newkirk, W. B., [crystal] development and production of anhydrous glucose, B., 900.

Newland, D. H., mineralogy and origin of the Taconic limonites, A., 1086.

Newland, W. Y., and Duke, G. E., apparatus for use in electrodeposition of metals, (P.), B., 746.

Newlander, J. A., digestibility of artificially dried roughages, B., 427. Digestibility of artificially dried Sudan grass, B., 427. and Jones, C. H., values of different

grades of milk in infant feeding. III., B., 425.

Newling, W. B. S., and Hinshelwood, C. N., kinetics of acid and alkaline hydrolysis of esters, A., 1345.

Newman, A., and Pacific Coast Borax Co., crystallisation of borax from solution, (P.), B., 453.

Newman, A. B., heating and cooling rectangular and cylindrical solids, B., 671.

Newman, D. F., and Trans-Lux Daylight Picture Screen Corp., projection screens, (P.), B., 300. Projection screens and allied methods, (P.), B., 1236.

Newman, E. L. See Means, E. A. Newman, F. C. See Brayshaw Furnaces & Tools, Ltd.

Newman, F. H., air afterglow, A., 3. Newman, H., determination of ethyl alcohol

in body-fluids, A., 652.

Newman, H. W., and Cutting, W. C. alcohol injected intravenously: effect of habituation on rate of metabolism,

and Tainter, M. L., effect of dinitrophenol on rate of alcohol metabolism, A., 1020.

Newman, L. Sec Annetts, (Miss) M. Newman, L. W. J., and Rydon, H. N. mechanism of conversion of Δγ-butcnol into Δ^{β} -butenyl bromide, A., 452.

Newman, M. S. See Anderson, R. J., and Fieser, L. F.

Newport Industries, Inc. See Palmer, R. C. Newsome, J. W. See Pearce, J. N.

Newson, H. W., radioactivity induced in oxygen by deuteron bombardment, A., 132.

See also Harkins, W. D.

Newton, F. A., aniline-black printing, B., 16.

Newton, H. P., and Groggins, P. H., benzophenones from carboxylic acids, A., 205.

Newton, J. H., codling-moth control, B., 37. Codling moth, North Fork Valley, Colorado, B., 853.

Newton, L. O., [boiler feed-]water treatment, B., 719.

Newton, R., and McCalla, A. G., effect of frost on wheat at progressive stages of maturity. III. Milling and baking quality, B., 210.

Newton, R. C. See Industrial Patents Corp. Newton, R. F., and Tippetts, E. A., activity of water in solutions of barium chloride,

Newton, R. H., and Copson, R. L., superphosphate manufacture, B., 1150.

See also Copson, R. L. Newton Steel Co. See Butts, C. H.

Ney, L. F., and West, E. S., potentiometria adaptation of the Shaffer-Hartmann sugar method, A., 1038.

Neyman, E., and Pilat, S. von, heat of solution of natural gas associated with petroleum oils, B., 625.

See also Irauth, F. Neznamov, N., solution for cleaning

metallic parts before painting, B., 200.

Nga, H. T., relation between photopotential and chemical properties of photo-sensitive organic substances, A., 271. Influence of nature and position of groups on photo-potential of substituted aromatic amines, A., 665.

Ni, S. M. See Wang, T. H.

Ni, T. G., composition and action on calcium metabolism of ah-chiao (donkeyskin) glue and commercial gelatin, A., 238. Hæmatopoietic action of ah-chiao (donkey-skin glue), A., 240. Creatinecreatinine excretion and creatine content of muscle in nutritional muscular dystrophy, A., 752.

Niagara Smelting Corporation. See Brallier, P. S.

Niagara Sprayer & Chemical Co., Inc. See Mewborne, R. G.

Niccolini, P., modifications of the thiocyanate concentration of the nasal mucus and other secretions, in relation to stimulation of the trigeminum and the olfactorium, A., 362. Relations between simple odorous and odorous irritant stimuli and thiocyanate concentration in the nasal mucus, A., 373.

Nice, M., kidney function during normal

pregnancy, A., 1542.

Nichita, G., Tuschak, N., and Iftimesco, G., alimentary value of old and new maize, A., 508.

See also Vladesco, R.

Nichol, A. A., olive Parlatoria (P. oleæ, Calvée) in Arizona. I. Life history and ecology, B., 853.

Nicholls, J. R., determination of cocaine alkaloids in mixtures with other alkaloids and local anæsthetics, B., 475.

Nicholls, P., determination of thermal conductivity of refractories, B., 371.

Nichols, A. A., bacteriology of canned milk products, B., 425.

See also Mattick, A. T. R.

Nichols, A. S., and Illinois Clay Products Co., high-temperature furnace insulatedwall construction, (P.), B., 769.

Nichols, E. H., tennis court, (P.), B., 149. Nichols, J. A. See Gas Light & Coke Co. Nichols, M. S. See Lea, W. L.

Nichols, P., underfeed combustion, effect of preheat, and distribution of ash in fuel

beds, B., 481.

Nichols, P. F. [with Bethel, R. D., and Filipello, F.], sucrose content and glucose: fructose ratio of California dried prunes, B., 42. See also Merrill, F. D.

Nichols, $V.\ C.$ See Krueger, $A.\ P.$ Nichols, $W.\ T.$, and Westvaco Chlorine Products, purification of carbon tetra-chloride, (P.), B., 1140.

Nichols Engineering & Research Corporation. See Baird, D., Hartley, Henry J.,

and Lewers, G. R.

Nichols Engineering & Research Corporation of Canada, Ltd. See Freeman, Horace.

Nicholson, A. See Leda Electric Co. Nicholson, F. See Bost, R. W.

Nicholson, H. H., and Childs, E. C., transport of water through heavy clay soils. II., B., 245.

Nicholson, M. N., and Lesser, C. E., milk with low content of solids-not-fat, B., 391.

Nicholson, T. F., use of micro-organisms in sugar analysis. II. Quantitative differentiation of fructose and mannose, A., 1363.

See also Harding, V. J.
Nicholson, W. M. See Harrop, G. A.
Nickelson, A. S. See Chesterman, D. R.
Nickerson, J. T. R., and Proctor, B. E.

chemical changes exhibited in sterile and in contaminated haddock muscle stored at different temperatures, B., 250.

Nickerson, R. F., sorption of acid sodium

oleate, A., 423.

Nickolls, L. C., Beam's test for hashish

(Indian hemp), B., 1127.

Nicloux, M., fate of alcohol in the blood in putrefaction in vitro, A., 357. Fate of alcohol in the corpse of an alcoholised mammal: formation of alcohol in non-alcoholised control animals, A., 371. Determination of alcohol in putrefied blood and tissues, A., 535. Micro-determination of alcohol in putrefied blood and in corpses, A., 535. Neo-formation of ethyl alcohol in the human corpse during putre-faction, A., 631. Water impermeable to alcohol, A., 748. Identification of ethyl alcohol, A., 1229.

Nicodemus, O., recent developments in the chemistry of acetylene in regard to the national supply of raw materials, particularly rubber and artificial mater-

ials, B., 1139.

Nicol, H. See Thornton, H. G.

Nicolai, L., reduction of oxyhemoglobin in the human skin, A., 495.

Nicolau, P., tests on east iron with a cylindrical test-piece of 5.64 mm. diameter, B., 887.

Nicolaysen, R., mode of action of vitamin-D. I. Phosphorus compounds in muscles, liver, and kidneys as influenced by different levels of vitamin-D and phosphorus in the diet, A., 1161. Magnesium excretion in dogs; physiology of the colon. III., A., 1412.

Nicolazzo, A. See Tria, E. Nicolescu, I. V. See Mironescu, A.

Nicolini, W., bending of thick aluminium bars, B., 1211.

Nicoll, L. G., photographic reproductions in colour, (P.), B., 173. Nicolls, J. H. H. See Gilmore, R. E.

Nidetzky, G., determination of the coloursensitivity [of photographic emulsions] by means of filters, B., 572.

Nie, H., nature and range of radiation particles (collision radiation) involved in

Hoffmann collisions, A., 658.
Niederl, J. B., Hart, W. F., and Scudi,

J. V., thiazolinephenols, A., 868.

Niederl, V., and Reznek, S., alkylated phenolichydroxy-indenesand-indanes; synthesis involving condensation of diacetone alcohol or pinacol with phenols, A., 720.

Trautz, O. R., and Plentl, A. A., microvaporimetric determination of mol.

wt., A., 1085.

See also McGreal, M. E.Niederl, V. See Niederl, J. B.

Niederländer, K. See Reindel, F. Niedmann, F. G. C., and Leroux, A. L., chemical cleaning of cloth fabric, etc., (P.), B., 930. Niehaus, C. J., determination of alcohol by

means of the "ebulliometer," B., 389.

Niekerk, J. van, sensitivity of rachitic rats for vitamin-D, A., 120. Evaluation of the relative toxic effects of large doses of calciferol and the crystalline antirachitic preparation substance L, A.,

See also Boer, A. G.

Niekerk, P. le R. van. See Theron, J. J. Niel, C. B. van, apparent absence of Azotobacter in soils, B., 851.

and Smith, J. H. C., pigments of purple bacteria. I. Spirilloxanthin, a component of the pigment complex of Spirillum rubrum, A., 1155.

See also Spence, D. Nielsen, A. H., two double salts of ferric fluoride, A., 441. Barium ferric fluor-ides, A., 947.

and Nielsen, H. H., infra-red absorption bands of methane, A., 136. Infra-red absorption spectrum of HDS and D2S, A., 545.

Nielsen, B., digitalis. I. New principles in evaluation, A., 534.

Nielsen, E. R., glue tanning with form-aldehyde; application to the manu-facture of hectograph masses, B., 1114.

and Miner, C. S., coffee resistant to urn deterioration, (P.), B., 666.

Nielsen, H. H. See Nielsen, A. H., and Steward, W. B. Nielsen, J. R. Scc Langseth, A.

substance \vec{B} , A., 1154.

Nielsen, L., and Jensen, N., adsorption of methylene-blue by charcoal tablets, B., 1016.

Nielsen, Niels (Carlsberg), yeast growthpromoting substances, A., 381. Nitrogen assimilation of yeast. VII. Ability of yeast to assimilate aminoacids, A., 1300. Influence of the malting and brewing processes on concentration of growth-promoting substances [for yeast] in wort, B., 342. Ability of yeast to liberate coagulable nitrogen, B., 518. Nitrogen content of single barley grains, B., 903. and Hartelius, V., chemistry of growth

Nielsen, Niels (Carlsberg), and Lund, A., nitrogen assimilation of yeast. Assimilation of formol-titratable nitrogen compounds from beer-wort, A., 1026.

Nielsen, Niels (Copenhagen), and Smidth & Co., F. L., cement, (P.), B., 696.
Nielsen, N. A. See Lundsgaard, E.
Nielsen, R. A. See Bradbury, N. E.

Nielsen, R. F., kinetic salt effect in saponification of ester ions, A., 432.

Nielsen, W. M. See Morgan, J. E. Nieman, H. W., and Bethlehem Steel Co., application of tin to metallic [iron] sheets, (P.), B., 1161.
Niemann, C. See Bergmann, M.

Niemann, J. See Borsche, W. Niemann, R. See Klages, F.

Niemczyk, J., physical characteristics and printing quality of paper, B., 587.

Niemeier, H. W., substances affecting the ovary from the anterior pituitary and from pregnancy urine, A., 900.

Niemer, H. See Hahn, A.
Nienburg, H., second synthesis of dglutamine, A., 195.
See also Klein, G.

Niens, W., determination of the efficiency of X-ray fluorescence by means of the

counter tube, A., 925. er, A. O., isotopic constitution of rubidium, zinc, and argon, A., 401. Evidence for the existence of an isotope of potassium of mass 40, A., 1440.

Nierenstein, $M_{\cdot \cdot}$, tea tannin, A., 911. Nies, N. P. See Dickinson, R. G.

Nieschlag, F. See Popp, M.
Niesen, F. Seo Michels, A.
Niessen, K. F., Sommerfeld's theory of metals, A., 404.

Nietsch, H., composition, nutrient content, and digestibility of pasture grasses: nutrition of foals, B., 394. See also Ehrenberg, P.

Nieuwenburg, C. J. van, and Dewald, R. H., geochemical frequency of barium, A., 700.

Nieuwenhuis, W. E. Seo Wibaut, J. P. Nieuwenkamp, W., crystal structure of cristobalite, SiO₂, A., 413.
Nieuwland, J. A. Sco Danehy, J. P.,

Gierut, J. A., Hennion, G. F., Killian, D. B., Kroeger, J. W., Slanina, S. J., Sowa, F. J., Thorn, S. D., Vogt, C. A., Wunderly, H. L., and Young, C. A.

Niewodniczanski, H., forbidden lines in the spectrum of neutral lead with highfrequency excitation, A., 1438.

See also Boorse, H. A., and Westcott, $C.\ H.$

Niezoldi, O., boiler troubles through inadequate feed-water control, B., 479. Nifontova, S. S. See Nametkin, S. S.

Nightingale, D., and Alexander, C. H., nitrogen-substituted barbituric acids, A., 864.

and Morris, L. C., phenyl nitrogen substitution and reactivity in barbituric acid series, A., 1267.

Nihayashi, M. See Kimura, W.

Nihon Denchi Kabushiki Kaisha. Tachihara, Y.

Niini, R., stability of closest packing of spheres, A., 552.

Nijveld, W. J., supplement to Steenbock diet 2965, A., 1552. See also Gerding, H.

Nikiforov, E. A., and Gluchovskaja, L. M., cathodic reduction of oxides on iron surfaces, as a method of estimating corrosion, B., 599.

Nikiforov, E. A., and Godina, N. A., composition and structure of surface films on iron, A., 793.

Nikiforov, V. K., effect of light on periodic

reactions, A., 36.
Ismailov, N. V., and Sandomirski, S. S. relation between b.p., m.p., and mol. wt., A., 149.

and Lemeche, M. R., influence of light intensity on periodic formation of Ag₂Cr₂O₇ precipitates in gelatin, A.,

and Runtzo, P. M., photochemical polymerisation of butadiene, A., 1215. Nikiforova, V. A. Seo Kireev, V. A.

Nikitin, B. A., radon hydrate, A., 676. Nikitin, E. K., approximate determination of furfuraldehyde in solutions, A., 1006.

See also Tschelincev, V. N.

Nikitin, L. V., acoustic electrochemical phenomena. II., A., 938. and Coschevanov, V. G., [determination

of] plastic deformation of metals, B., 995.

Nikitin, N. I., and Nagrodski, I. A., rapid determination of the viscosity of unbleached chemical pulps, B., 980.

and Orlova, I. M., action of benzaldehyde on lignin, A., 477. Preparation of cellulose phthalates, B., 311.

and Rudneva, T. I., action of ethylene oxide on cellulose. I., A., 57. Action of ethylene oxide on wood and lignin. II., A., 340.

and Soloviev, I. A., arabogalactan of Siberian larch, A., 123.

Nikitin, V. M., influence of conditions of synthesis on quality of methyl alcohol, B., 404.

Nikitina, E. A., composition and properties of potassium phosphotungstate, A., 174. See also Rakovski, A. V.

Nikitine, S. See Soleillet, P.

Niklas, H., and Miller, M., statistical interpretation of combined fertiliser trials, B., 384.

Niklewski, B., Brodowska, H., Dydo, M., and Kahl, M., chemotropism of plant roots. II. Stimulation by colloids, A., 1034.

and Duda, J., chemotropism of plant roots. I. Chemotropic stimulation by mineral salts, A., 1034.

Kahl, M., and Dydo, M., chemotropic irritation of roots, A., 767.

Nikogosjan, K. S. See Judinson, P. I. Nikolaev, A. A., cis-trans-transformations of cyclic systems in the light of the solvate theory, A., 981.

Nikolaev, N. S., and Ivanov, N. A., preparation of concentrated hydrofluoric

acid, B., 930.

Ivanov, N. A., and Koltipin, S. G., sodium silicofluoride and aluminium fluoride, and their solubility in water and hydrofluoric acid, A., 1333.

and Kamorgorodski, S. M., preparation of magnesium and barium fluorides,

B., 19Ĭ.

Nikolaev, P. N., salted coke, B., 5. Nikolaev, V. I., and Burovaja, Z. E., crystal hydrates of lithium ferrocyanide, A., 944.

Solovov, A. M., and Frischmut, M. A., adsorption of bromine ions by argillaceous sludges, A., 1457.

See also Egorov, A. D. Nikolaeva, L. I. See Schvemberger, V. I. Nikolaeva, N. V. See Smorodincev, I. A. Nikolitch, D. See Schlivitch, S.

Nikoliuk, B. A. See Silin, N. F. Nikolskaja, V. P. See Shukov, I. I. Nikolski, B. P. See Grigorov, O. N.

Nikolski, A. A., utilisation of chitin for manufacture of plastic masses, B., 1006.

Nikolski, N. A., factors determining the composition and yield of coal tar. I., B., 625.

and Stepanenko, M. A., influence of treating conditions on swelling capacity of coal, B., 914.

Nikolski, S. I. See Ginsberg, A. S. Nikonov, I. N. See Titov, P. S. Nikonova. See Chodakov. Nikonova, I. See Berlin, L.

Nilakantan, P., magnetic anisotropy of naturally occurring substances. Mother of pearl, A., 277.

Niles, G. H., and Improved Equipment-Russell Eng. Corp., vertical-retort bench [for coal distillation], (P.), B., 582.

Nilov, V. I., chemical variability in plants and its significance for selection and systematics, B., 211. Nilsen, K. W. See Raeder, M. G.

Nilssen, B., tautomerism, A., 186.

Nilsson, I., determination of glucosamine in proteins, A., 1012.

Nilsson, R., and Alm, F., liberation of the zymase system from the yeast cell by autolysis, A., 894. Alcoholic fermentation in the intact enzyme system of the yeast cell and in the disorganised zymase system. I. and II., A., 1299, 1421.

Nims, L. F., ionisation constant of glycollic acid from 0° to 50°, A., 935.

and Horwitt, M. K., overhead heater for rapid evaporation, drying, and charring, A., 1086.

and Smith, P. K., ionisation of lactic acid, A., 564.

Nininger, H. H., the Bruno meteorite, A., 584. Niño, E. L., and Calvet, F., preparation and some analytical applications of 2:7-diaminofluorine, A., 1352.

Ninomiya, M., and Yamamoto, R., kaoliang in starch-making, milling, and " Ame manufacture. II. Alcohol-soluble proteins of glutenous and common kaoliang, B., 471.

See also Yamamoto, R. Nippe, W., separation of the ligninsulphonic acids precipitable with amines, A., 995.

Nippen, H., and Lips, E., determination of transformation points [in alloy systems], A., 181.

Nipper, H. See Schmid-Burgk, W. Nisharadze, I. P. See Urazov, G. G.

Nishi, G. See Sanada, Yoshiaki. Nishi, T. See Fujise, S., and Shibata, Rin-nosuke,

Nishibori, E. See Sasaki, N. Nishida, H. See Shikata, M.

Nishida, K., and Matsui, J., hermaphroditism, A., 1540.

See also Masuda, E.

Nishida, Kitsuji, "sotetsu'' (Cycas revoluta, Thunb.). IV. Sotetsu-emulsin. V. Sotetsu pollen. I., A., 259.

Hashima, H., and Fukamizu, T., wood substances. II. Determination wood mannan, and the mannan content of various angiosperms. III. Wood constituents from Manchuria,

B., 194, 456. Miyama, R., and Hashima, H., wood substances. IV. Constituents of deciduous woods from the river region of Jalu-Kang, Antung, B., 740.

Nishida, Kitsuji, and Uota, H., diterpene, "sciadopitene," from leaf- and wood-oil of Sciadopitys verticillata, S. and Z. I. Properties. II. Derivative of sciadopitene and the reduction of the two isomerides, A., 207, 1037.

Nishida, Kotaro, and Yamada, A., Japanese sago plant. III. Enzyme chemistry of a constituent containing formaldehyde.

I., A., 1036.

Nishida, Shigeru, influence of pituitary body and preparations of other endocrine organs on inorganic salts of the blood,

Nishida, Sotohiko, disintegration of beryllium by y-rays and of boron by neutrons, A., 1173.

Nishigaki, N. Sce Osugi, S.

Nishigori, S., rôle of aluminium or chromium in nitriding of steels, B., 411.

Nishikata, E. See Ogawa, Y.
Nishikawa, H., biochemistry of filamentous fungi. IV. Mycelial constituents of Oospora sulphurea-ochracea. I., A., 1027.

Nishikawa, M., and Ito, E., influence of iron, aluminium, and silicon on impact values of brasses at higher temperatures, B., 23.

Nishikawa, S., Nakagawa, S., and Sumoto, I., slowing down of neutrons by thin layers of paraffin, A., 1044.

Nishimura, H., deoxidation of bronzes by phosphorus, B., 1043.
Nishina, T. See Honda, K.
Nishina, Y., Tomonaga, S., and Tamaki, H.,

interaction of the neutron and proton, A.,

Nishino, K., monel metal in chlorinehandling valves, B., 64.

Nishioka, U., acceleration of the reaction

ioka, U., according to $C+CO_2 \rightarrow 2CO$ by some A=168. $CaO,TiO_2,SiO_2-CaO,SiO_2-CaO$ A., 168. CaO,TiO₂,SiO₂-CaO,SiO₂-CaO,Al₂O₃,2SiO₂ system. I. Equilibrium diagram of the system CaO,SiO₂-CaO,Al₂O₃,2SiO₂. A., 565. Equilibrium diagrams of the systems CaO,Al₂O₃,2SiO₂-CaO,TiO₂, and CaO,MgO,2SiO₂-CaO,TiO₂, A., 682. and Okamoto, M., equilibrium diagram of the system brium fluoride-magnet

of the system barium fluoride-magne-

sium fluoride, A., 681.

Nishiyama, Y., formation of sarcoma by repeated injections of highly concentrated glucose solutions in rats fed with o-aminoazotoluene, A., 626.

Nishiyama, Z., tetragonal martensite in carbon steels, A., 143. Mechanism of the y-a transformation in stainless invar caused by stress, B., 1043.

Nishizawa, K., sulphonated oils. XXVII.
Preparation and properties of pure salts of the sulphuric ester of i-hydr-

oxystearic acid, A., 1230. and Kinoshita, R., Twitchell reagents. XVII. Properties of sulpho-compounds isolated from commercial wetting agents, B., 1214.

and Matumoto, K., Twitchell reagents. XVI. Constitution of fatty acids and their darkening on heating with Twitchell reagents, B., 1105.

See also Amagasa, M. Mishizawa, T. See Yamagawa, M. Nisoli, F. E. See Bodson, E. Nissen, H., distribution of phosphorus

compounds in human and animal blood, A., \$76.

Nisson, P. S., and Gray Processes Corp., sweetening of petroleum oil, (P.), B., 1080.

Nitardy, F. W., Christiansen, W. G., Deuble, J. L., and Squibb & Sons, E. R., therapeutic compositions, (P.), B., 476. See also Billheimer, E. C., and Deripe, F. N. van.

Nitka, H., K-absorption of X-rays at the K-edges, A., 128. Number of Ldispersion electrons, A., 917.

See also Justi, E.

Nito, T., and Kitamura, E., enzymes in yellow tobacco, A., 635.

Nitralloy Corporation. See Fry, A., and Hengstenberg, O.

Nitricastiron Corporation. See Babinet, A.

Nitsche, K. See Gorbach, G. Nitsche, K. S., evaluation of mineral waxes, B., 228.

Nitschmann, H. See Kohlschütter, H. W. Nitta, I., and Watanabé, T., interpretation of X-ray diffraction pattern of liquid carbon tetrachloride, A., 553.

Nitti, F. See Fourneau, E., and Tréfouël, J. Nitzescu, I. I., Georgescu, I. D., and Timus, D., determination of paraldehyde in tissues and fluids after intravenous injection of this substance, and in respiratory air of paraldehydeanæsthetised animals, A., 913.

and Gontzéa, I., lactacidæmia in fowls with avitaminosis-B, A., 496.

Nitzsch, W. von, pore space of cultivated soils; utility of methods of measurement, B., 1170.

Niven, C. D., Hume-Rothery conception of the metallic state, A., 416. Calibration of platinum thermometers at the b.p. of sulphur, A., 581. Gas-tight furnace for thermocouple standardisation, A., 1480.

Niven, J. S. F., formation of hamatoidin in vitro from mammalian erythrocytes, A., 1134.

Sec also Muir, R.

Nixon, A. C., and Branch, G. E. K., rates of alcoholysis of triarylmethyl chlorides,

Njegovan, V., kinetic interpretation of internal effects, A., 14. "Gas mists," A., 411. Inner thermodynamics. II., A., 1069.

Noack, K., laboratory method for determination of the vaporisability of lubricating oils for internal-combustion engines, B., 776.

Noack, Kurt, chemistry and physiology in relation to the cultivation of plants, B., 1013. Nobili, L., quininc-urethane solutions, A., 490.

Noble, H. R. See Campbell, N. R.

Noble, R. J., and Heveatex Corp., preparation of reversible rubber compositions from rubber latex and their reversal, (P.), B., 338. Granulated rubber, (P.), B., 1113.

Noble & Wood Machine Co. See Tolman, C. P. Nobutani, F., tyrosinase. II. Action of potato-tyrosinase on phenols and the influence of amino-compounds on the tyrosinase system, A., 1556.

Nock, J. A., jun. See Aluminium, Ltd., and Aluminum Co. of America.

Noda, M., pharmacology of sodium fur-I. Effect on the frog furacrylate. heart, A., 1148.

Noddack, (Frau) I., occurrence of rare earths in meteorites, A., 184. Periodic system of the elements and its gaps, A., 540.

and Noddack, W., distribution of useful metals in the earth's crust, A., 186.

Noddack, W. See Noddack, (Frau) I. Nodler, F. X., and Nodler, M., determining degree of dough fermentation, (P.), B.,

Nodler, M. See Nodler, F. X.

Nodzu, R., and Goto, R., action of dilute alkalis on glucose. I., A., 1094. and Matsui, K., action of phosphate on hexoses. II., A., 55.

Noecker, N. L. See Loomis, W. E.

Noë, A. See Wallerstein, L. Noël, R. See Canals, E. Noelle, H. See Beckmann, W.

Nöller, W. See Hanle, W. Noethling, W. See Ehrismann, O.

Noetzel, O., detection of vermouth in vinous beverages, B., 1064.

Nogareda, C., surface reactions at very low pressures. III. Platinum-iodine, A., 1211.

Noguchi, Tadao. See Yamada, K.

Noguchi, Takashige, electrolytic polarisation capacity and the atomic mechanism of hydrogen electrodes, A., 682.

Noguchi, Y., modification of [plant] leaf structure by X-rays, A., 392.

Nolan, J. J., and Guerrini, V. H., diffusion coefficients and velocities of fall in air of atmospheric condensation nuclei, A., 425. Determination of the mass and size of atmospheric condensation nuclei, A., 1198.

Nolan, P., and Jenkins, F. A., intensities in the 3400 band of phosphorus hydride,

A., 405.

Nolan, R. E., Sclerotium rolfsii, Sacc., on strawberries and effect of chemicals on the sclerotia, B., 116.

Nolan, T. J., and Brady, T. G., pigment of the flowering current (Ribes sanguineum, vars. splendens and atrosonguineum, A., 912.

See also Spillane, P. A.

Nolan, W. J., and McCready, D. W., rate of digestion of wood in sodium hydroxide solutions, B., 268.

Nolcken, W., corrosion in refrigeration plants, B., 47. Nold, A. E. See Slotta, K. H.

Noll, A., and Becker, M., chemical and histochemical determination glycogen contents of white and red muscle, A., 1533.

Noll, August, degree of polymerisation of cellulose as a characteristic of the pulp, B., 56. Density of test sheets as index of porosity of the pulp, B., 230.

Noll, C. F., Irvin, C. I., and Gardner, F. D., field experiments with [fertiliser] phosphates, B., 611. See also Gardner, F. D.

Noll, W., synthesis of montmorillonite, A., 449. Hydrothermal synthetic investigations on Al₂O₃-SiO₂-H₂O system, A., 584. Mineral formation in system Al₂O₃-SiO₂-H₂O, A., 1228.

Noller, C. R., Carson, J. F., Martin, H., and Hawkins, K. S., relative rates of ozonisation of unsaturated compounds, A., 313.

and Kaneko, G. K., ozonisation of hydrogenated diphenyls, A., 321. See also Jurs, P. C., Linn, C. B., and

McMaster, L.

Nolte, A. C. See Schwab, Gustav. Nolte, E., iron metabolism, A., 513. Iodine [in protein], A., 1528.

Noltie, H. R., effect of iodoacetate on postmortem glycogenolysis in liver, A., 106. See also Bridge, E. M.

Nomi, K. See Nagai, S.

Non-Metallic Minerals, Inc. Seo Patnoe, W. W.

Non-Poisonous Gas Holding Co., Ltd., non-poisonous fuel gas, (P.), B., 53. Nonpoisonous town gas, (P.), B., 180, 819. Carrying out gas reactions with aid of contact substances, (P.), B., 576.

Nonhebel, G., commercial plant for removal of smoke and oxides of sulphur from

flue gases, B., 965.

See also Imperial Chem. Industries. Nonnenbruch, W., Stary, Z., Bareuther, A., and Thelen, H., muscle metabolism in arsenic-treated rabbits, A., 517.

Noort, D. W. van, formaldehyde sterilisation of rubber gloves, B., 430.

Norbury, A. L., and Morgan, E., effect of non-metallic inclusions on the graphite size of grey cast iron, B., 1097.

Nord, F. F., cryolysis and its relation to cell physiology, A., 227. Effects of ethylene on the plant growth hormone, A., 909. Relation between low-temperature research and colloid chemistry, A., 934. Action of ethylene on cell processes, A., 1146.

Dammann, E., and Hofstetter, H., alleged necessity for initial phosphorylation in alcoholic carbohydrate degradation,

A., 896.

Dammann, E., and Hofstetter, H. [with Senftner, V., and Rosdorff, E.], mechanism of enzyme action. XIII. Phosphorylation and alcoholic fermentation of sugars; biochemistry of Fusarium

lini, B. I., A., 896.
See also Endoh, C., and Lange, F. E. M.
Nordberg, M. E. Sco Corning Glass Works. Nordberg Manufacturing Co., jaw crushers, (P.), B., 48. Impact crushers and methods of crushing, (P.), B., 960.

See also Butler, R. S.

Nordell, C. H., and Lakeside Eng. Corp., grit separator, (P.), B., 961. Nordenswan, C. J. See Hercules Pow-

der Co.

Nordheim, G., orbital valency according to an extended Heitler-London method, A., 1324.

Nordheim, L., limits of elementary theory of metallic electrons, A., 404.

Nordheim, L. W., probability of radiative processes for very high energies, A., 266. Free path and thermoelectric effects, A., 1329.

Nordheim-Pöschl, G., orbital valency and directed properties in the theory of the chemical linking. I. and II., A., 781.

Nordmann, use of rubber in preparation of varnishes, B., 108.

Nordmann, J., and Reiss, P., action of 2:4-dinitrophenol on the oxidation-reduction potential of the aqueous humour and crystalline lens of the rabbit, A., 1550.

Nordmann, L., treatment of bast fibre, (P.), B., 735.

Nordsieck, A., neutron collisions and the

 β -ray theory of Fermi, A., 266. Nordstrand, R. D. van. See Gen. Electric Co.

Nordström, A. M., Finnish spruce resins. IV. Oxidation by potassium permanganate of the resinic acid, m.p. 142-143°, B., 30.

Nordström, G., alloys for temperatures above 1150°, B., 325. Chromiumcobalt-aluminium-iron alloys stable at high temperatures, B., 548.

Norgorden, O., inverse piezo-electrio properties of Rochelle salt at audio frequencies, A., 927.

Noriega del Aguila, M., Raman spectrography and its importance in chemical investigations, A., 1445.

Norkina, S., and Orekhov, A., alkaloids of Ungernia Scwertzovii (Rgl.), Fedsch., A., 618.

Norlin, E., non-corrodible materials in the Swedish chemical industry, B., 719.

Norman, A. G., destruction of oak by the death-watch beetle, A., 1143. Composition of forago crops. I. Ryo grass (western wolths), B., 905. Composition of vegetable fibres, with particular refer-

ence to jute, B., 586.

Norman, M. F., oxidation of amino-acids by hypochlorite. I. Glycine, A., 595.

Norman, P. J., and Hughes, E. B., tannin

content of tea, B., 713.

Normann, W., viscosity determinations of [fatty] oils, B., 285. Preparation of nickel-kieselguhr catalysts, B., 986.

Normark, P., and Savron, E., rôle of carnosine in muscle activity; influence of training on the content of the musclo in chromogenio substance, A., 1143.

Norpoth, L., scurvy in Addison's disease and value of catalase index in adrenal insufficiency, A., 503.

Norquist, V. C., and Butler Manufg. Co., filter, (P.), B., 129. [Leaf] filter, (P.), B., 673.

Norris, F. G., slag control applied to lowcarbon steel, B., 410.

Norris, J. C., adrenal disease in relation to hypoglycemia and death, A., 503.

Norris, J. F. See Thompson, D. D.
Norris, L. C., Heuser, G. F., Ringrose,
A. T., Wilgus, H. S., jun., and
Heiman, V., vitamin-B₂ requirement
of poultry, A., 529.

See also Davis, H.J., and Wilgus, H.S., jun.

Norris, R. E. See Pearson, A. R. Norris, W. V., Unger, H. J., and Holmquist, R. E., infra-red absorption band of heavy-water vapour, A., 406.

Norrish, R. G. W., photochemical reaction of polyatomic molecules as represented by carbonyl compounds, A., 1215.

See also Akeroyd, E. I., Bloch, B. M., Carruthers, J. E., and Foord, S. G.

Norsk Hydro-Elektrisk Kvaelstof-Aktieselskab, manufacture of [alkali nitrate] salts by means of base-exchangers, (P.), B., 1206.

See also Foss, A.

Norske A./S. for Elektrokemisk Industri, electrodes for electric furnaces, (P.), B., 1213.

North, C. O., and Kreighbaum, H. S., [preparation of] esters of ethylene glycol ethers, (P.), B., 823.

and Rubber Service Labs. & Co., manufacture of an accelerator for rubber vulcanisation, (P.), B., 1221.

North, C. W. See Brit. Celanese.

North American Rayon Corporation. See Bley, R. S., Elssner, R., and Etzkon, R. North American Refractories Co. See McKinley, J. M.

North British Rayon, Ltd., Walls, E., Pitter, A. V., and Stenger, P. A., protecting spun cakes of artificial threads

[during washing, etc.], (P.), B., 314.

Northall-Laurie, D., treatment of flue dust, (P.), B., 529. Production of threads with a metallised appearance, (P.), B., 692.

Northam, A. J. See Du Pont de Nemours & Co., E. 1.

Northcott, L., veining and sub-boundary structures in metals, B., 995.

Northen, H. T., histological applications of tannic acid and ferrie chloride, A.,

Northern Aluminium Co., Ltd., aluminium alloys, (P.), B., 938.

Northern Coke Research Committee, [wet oxidation of carbon], B., 864.

Northrop, D. E. See Eastman Kodak Co. Northrop, J. H., isolation and properties of pepsin and trypsin, A., 244. Concentration and partial purification of bacteriophage, A., 1424.

See also Calvery, H. O., Herriott, Roger M., and Kunitz, M.

Northrop, S. A., thulite in New Mexico, A., 308. Analyses of thulite, A., 701. Northrup, E. F., and Ajax Electrothermic Corp., mussle inductor electric furnace, (P.), B., 156.

See also Electric Furnace Co.

Northup, D., secretory metabolism of the salivary glands, A., 1412. Northup, M. A. See Hart, W. F.

Northwest Paper Co. See Textor, C. K. Northwestern Club, exposure test on repainting wood surfaces; first progress report, B., 650.

Norton, A. J., synthetic resins, with special reference to phonolic products, B., 68.

Norton, B., treating the water in coalwashing systems, (P.), B., 179. Discharge and treatment of slurry from the main settling tank of a coal-washing system, (P.), B., 179. Separation of dust from coal, (P.), B., 582.

Norton, F. H., colour formation in glasses and glazes, B., 20. Flow of ceramic bodies at elevated temperatures, B., 642. Manufacture and use of the insulating firebrick in the United States, B., 1041.

Norton, J. T., simplified technique for lattice-parameter measurements, B.,

Norton, L. B. See Pearce, G. W. Norton, S. G. See Hercules Powder Co.

Norton Co., apparatus for filtering liquids, (P.), B., 816. Articles of bonded granular material, (P.), B., 933*.

See also Martin, R. H., and Ridgway, R. R.

Norton Grinding Wheel Co., Ltd., grinding wheels, (P.), B., 836.

Norton's (Tividale), Ltd., and McKeown, C. G., centrifugal dust collectors, (P.), B., 1024.

Nosowiez, M. See Loskiewicz, L.

Noss, F., and Goldlust, W., use of size in the paper industry, B., 830.

Nostitz, A. von, sieve and elutriation analysis of soil, B., 897. Determination of humus [in soil] by means of potassium permanganate, B., 1170.

Nosu, S. I. See Kasahara, M.

Notevarp, O., and Weedon, H. W., spectrophotographic studies on the antimony trichloride reaction for vitamin-A. I. Relation between tintometer readings and spectral absorption of the blue solution, A., 1429.

Nothhaas, R., physiological degradation

of blood-pigments. III. Derivation of urinary pigments from hæmoglobin, A., 222.

Notkina, L. G., and Lifschitz, D. B., chemical composition of wheat hulls, and their hydrolysis with mineral acid, B., 855.

Nottage, (Miss) M. E. See Wilsdon, B. H. Nottbohm, F. E., and Mayer, Fr., detection of lecithin and egg-yolk in chocolates, B., 42. Efflorescence of concrete flooring under stored cacao beans, B., 345.

Nottes, G. See Lock, G.

Nottin, P., and Daron, A., examination of wheat and flour by the Chopin extensimeter, B., 249. Determination of ash of bread, B., 1065.

Nottingham, W. B., electron emission from thoriated tungsten, A., 129. Thermionic emission from tungsten and thoriated tungsten filaments, A.,

Nova Scotia, Department of Agriculture, weed control, B., 756. Apple waste for dairy feed, B., 761.

Novák, E. See Janesó, N. von.

Novak, I. J., and Raybostos-Manhattan, Inc., cresylic acid condensation product, (P.), B., 944.

Novakovskaja, E. S., rôle of carbohydrates in protein metabolism in the overheated organism, A., 1017.

Novelli, A., antiseptics; mercury salts of alkylfluoresceins, A., 352.

Novikov, V. A., effect of calcium on root development of transplanted cotton plants, B., 36.

Novikova, E. See Jermolenko, N. Novikova, V. P. See Malinovski, V. E. Novocol Chemical Manufacturing Co., Inc.

See Goldberg, S. D. Novomeysky, M. A., the Dead Sea: a storehouse of chemicals, B., 317.

Novopavlovski, V. A. See Juriev, K. M. Nowack Akt.-Ges., A., electrically insulating bodies, (P.), B., 556.

and Hecht, O., [urea-formaldchyde-type]

lacquers, (P.), B., 463. and Hessen, R., artificial resins, (P.), B., 207, 653. Articles from synthetic resins, (P.), B., 704.

Nowatke, V., collodion membranes; pre-paration, physical properties, and dialysis measurements in solutions, A., 815. Dialysis and diffusion coefficients of alkali chlorides, A., 934.

Nowiński, W. W. See Needham, J. Nowlen, J. P. See Brockman, C. J. Nowotny, H. See Heller, W. Noyce, W. K. See Pagel, H. A.

Noyes, A. A., and Garner, C. S., strong oxidising agents in nitric acid solution. I. Oxidation potential of cerous-ceric

salts. II. Oxidation petential of thallous-thallic salts, A., 1072. Noyes, W. A., and Singh, Bhagat, parachors of methyl and ethyl nitrites and of

nitromethane and nitroethane, A., 782. Noyes, W. A., jun. See Duncan, A. B. F., Fisk, C. F., Howe, J. P., and Mahncke, H. E.

Noyons, A. K. M. See Harreveld, A. van, and Jongbloed, J.

Nozawa, F. See Matsunawa, S. Noziri, S. See Mizushima, S.

Nozoe, T., polyterpernoids and their glucosides. I. Saponins from the seeds of Barringtonia asiatica, Kurz. II. Constituents of the sugar part of A_1 -barrinin, A., 396.

Nnkita, Y., influence of various substances on the change of state of urio acid in the serum. I. and II., A., 1283.

Numakura, H., electret, A., 666.

Numano, S. See Akabori, S.

Numaziri, S., hard-rubber reactions. I. II. Relation between hardness and time of vulcanisation. III. Changes of the acetone extract during the course of vulcanisation, B., 464, 705, 1008.

Nunn, L. C. A., and Maclean, I. S., oxidation products of unsaturated acids of

linseed oil, A., 54.

Nurmia, M., transformation of sugars in plants, A., 1432.

See also Virtanen, A. 1.

Nushdin, P. See Zuverkalov, D.

Nuske, F. A., production of fertiliser from cellulose materials by bacterial action, (P.), B., 564.

Nussberger, A., graphic representation of the mineral and curative springs of

Switzerland, A., 1483.

Nuti, C., application of the Schiff-Sörensen reaction to determination of protein substances of milk, B., 73.

Nutting, H. S. See Dow Chem. Co.

Nutting, P. G., adsorption and pyknometry, A., 423. Mineral filtering substance, (P.), B., 624. and Kaylor, M. J., acid-leaching [of

clay], (P.), B., 453.

Nutting, R. D., measurement and specification of colour-tolerance for dyed textiles, B., 188.

Nuzum, F. R. See Elliot, A. H.

Nuzzi, P., behaviour of ascorbic acid and glutathione in organs of guinea-pigs treated with various bacterial poisons.

I. Diphtheria toxin. II. Tetanus toxin. III. Koch's tuberculin, A., 757.

Ny, T., and Tsien, L., effect of pressure on

photographic sensitivity, B., 763.

Nygaard, K. K., and Duxbury, D. L., percentage of hæmoglobin compared with the volume of erythrocytes; importance of this relation in correcting the Van Allen determination of the volume of platelets, A., 354.

Wilder, M_{\cdot} , and Berkson, J_{\cdot} , relation between viscosity of the blood and the relative volume of erythrocytes

(hæmatocrit value), A., 1402.

Nylén, P., monoalkyl phosphites and their hydrolysis, A., 312. Molecular magnitude of metaphosphates, A., 1452. Spontaneous transformation of hypophosphoric acid, A., 1476. Nyman, G. A. See Komppa, G.

Nyquist, A. R., electrode for arc welding,

(P.), B., 282, 1000.

Nyrop, A., continuous extraction of vitamins and products containing vitamins,

(P.), B., 1178.

Nyrop, J. E., and Koefoed, Hauberg, Marstrand, & Helweg A./S. Titan, obtaining cream from rubber latex and other sap or concentrates of particles dispersed in liquids, (P.), B., 176.

Nystrom, E. W. See Meade, J. E.

0.

Oakden, $J.\ C.$ See Ferguson, $R.\ M.$ Oakes, $W.\ G.$ See Williamson, $A.\ T.$ Oakland Chemical Co. See MeGraw, G. Oakley, H. B., osmotic pressure of gum arabic. II. "Mol. wt." with different bases, A., 1200.

and Young, F. G., osmotic pressure of glycogen solutions, A., 878.

Oakley, (Miss) M., and Krantz, J. C., jun., buffer capacity of tomato juice, B., 810.

See also Krantz, J. C., jun.

Oakley, P., refining [the grain structure of] zinc., (P.), B., 1047.

See also Tullis, D. R. Oakley, W. W., and Corning Glass Works, melting of glass, (P.), B., 455.

Oakwood, T. S. See Marker, R. E.

Oastler, E. G. See Hertz, S. Oatley, C. W., contact p.d., A., 1224. Obaton, F., rapid determination of water

in soil, B., 164.

Obenauer, K., behaviour of coloured

agates in ultra-violet light, A., 1227. Ober, B., Wight, E. H., and Oberphos Co., phosphatic fertilisers, (P.), B., 165.

Oberg, S. A. Sec Talbott, J. H.

Oberhauser, F., quizápu and its volcanic ash, B., 71.

and Cabrera, R., photoluminescence, A., 11.

and Ripoll, P., gallium and its extraction from Chilean sand, B., 64.

Oberle, A., thermalisation of carbonisable materials, (P.), B., 679.

Oberling, C. See Roussy, G., and Sannié,

Obermaier, C. J. J., extraction of moisture from, and drying of, textile materials, and apparatus therefor, (P.), B., 689.

Obermaier & Co. See under Obermaier, C, J, J

Obermann, B. See Wittig, G.

Obermanns, H. E., effect of hemicelluloses on the beating and strength of pulps, B., 980.

Obermiller, M., specific reaction of dichlordiethyl sulphide in presence of other chemical warfare gases, A., 453.

Oberphos Co. See Ober, B., and Shoeld, M.

Obersohn, G. See Getreuer, V. Oberst, F. W., and Woods, E. B., total and reduced glutathione compared with oxygen content and capacity in the blood of pregnant and non-pregnant women, A., 93. Glutathione. I. Total and reduced glutathione, oxygen content and capacity, and cell volume of blood in non-pregnant and pregnant women with special reference to toxemias of

pregnancy, A., 1541.

Oberst, W. See Münzberg, F. K.

Obert, L. See Knudsen, V. O.

Obinata, I., and Hagiya, M., complex alloys of magnesium, based on the magnesium-cadmium system, B., 326.

Obnorski, A. See Jacyna, V.

Obogi, R. See Neumann, R. Oborin, V. I., pyrites dust, and adsorption by it of sulphur dioxide and trioxide,

Obrazcov, A. A., micro-organisms of the rhizosphere in Batum red-earth soils, B., 340.

O'Brien, F. T. See Wilhelmj, C. M.

O'Brien, H. See Stadie, W. C.
O'Brien, H. J., and Johns-Manville Corp.,
moisture-resistant mineral wool, (P.),

O'Brien, J. R. See Carter, C. W. O'Brien, W. J., Mutersbaugh, G. H., and Glidden Co., metallic [drying-oil] soaps, (P.), B., 942.

Obrutscheva, A., and Frumkin, A., potential of platinum in solutions of silver salts, A., 1466.

Obryadtschikov, S. N., change in velocity of the cracking reaction with temperature, B., 402.

See also Bljacher, J. O'Bryan, H. M., structure of the extremely soft X-ray absorption of solids, A., 1040.

Obshurin, A., and Usatschev, N., working saigva skins, B., 947.

Obst. W., technical applications of wool fat, B., 1215.

Obuehov, A. P. [with Gordon, E. 1.], equilibria in the system MgCO₃-Na₂CO₃-H₂O, A., 290.

[with Michailova, M. N.], equilibria in the system Na₃PO₄-NaCl-H₂O, A.,

Obuchov, E. See Derjaguin, B.

Obudovskaja, J. See Solotarev, P. V. Ochapkina, N. F. See Schvemberger, V. I. Ochiai, E_{ij} , synthesis of thiazologlyoxaline and thiazolopurine derivatives, A., 1130.

and Ikuma, S., synthesis of glyoxaline derivatives from a-oximinoketones; 4-3'-piperidylglyoxaline, A., 867.

and Miyaki, K., phytochemical reduction

of lactaldchyde, A., 191.

Tsuda, Kyosuke, and Ikuma, S., pyrrolidine derivatives. III. Catalytic hydrogenation under pressure of

pyridylpyrrole derivatives, A., 1522.

Tsuda, Kyosuke, and Yokoyama, J.,
pyrrolidine derivatives. II. Ring enlargement from the indolizidine to the norlupinane series, A., 212.

Ockerblad, N. F., Carlson, H. E., and Simon, J. F., effect of morphine on the

human ureter, A., 517.

Ockleford, C. W. See Blackie, A.

Ockrent, C. Sco Imperial Chem. Industries.

O'Connor, A. H. P. See Snell, F. D.

O'Connor, J. M., physiological basis of the sensation of cold. IV. Influence of temperature and of thyroid extract on oxygen consumption of the anæsthetised rabbit. V. Relation between basal metabolism, regulation of temperature, and sensation of cold, A., 888.

O'Connor, M. G., Buck, R. E., and Fellers, C. R., red squill [as raticide], B., 126.

O'Connor, R. See Hauser, C. R.

Oda, K., fast direct-cotton dyes, B., 183. Oda, Matazo, alkali-hydrolysis and dissociation constants of diketopiperazines and aniline peptides, A., 1339.

Oda, Mitchio. See Hosoya, S.

Oda, R. See Lauer, K.

Oda, S., combination of iron and copper and their relation to blood-formation and to general metabolism, and connexion between their effects and crystalline state of the metals, A., 372.

O'Daniel, H., mixed crystal problem, A., 676. Problem of mixed crystals; Na-AgCl and Tl-CsCl mixed crystals with Al and Cr X-rays, A., 790.

Oddie, G. T. See Spencer, J. F.

Oddie, T. H., efficiency of separation of hydrogen and deuterium by electrolysis, A., 36.

Oddo, B., and Acuto, G., syntheses by means of magnesylpyrroles; series II. XXI. and XXII., A., 342, 1264.

See also Polacci, G. Oddo, G., extraction of crystallised sucrose from the carob. II., VI. Alcoholic fermentation of carob syrup and molasses, B., 469, 564.

Oddo, G., and Algerino, A., mesohydry. V. Acyltriazenes; particularly marked instance of mesohydric isomerism, A., 465. Identity of the crystalline sugar extracted from the carob (Ceratonia siliqua, L.) and from the algarroba of Peru (Prosopis horrida, Inermis pallida, etc.) with sucrose from cane and beet sugar, B., 613.

Algerino, A., and Ribon, E., extraction of crystallised sucrose from the carob. III. Analysis of carobs from the whole Mediterranean basin and adjacent countries; control and modification of the analytical procedure. IV. Carob fruits from Mediterranean regions. V. Analytical data, B., 469, 564.

and Caronna, G., constitution of solanidine from Solanum sodomacum, A., 488. and Corsini, E., study of adsorption in solution by means of cryoscopy, A., 1196.

and Deleo, E., preparation of hydroxamic acids, A., 459. Additive products of aldehydes with disodium salt of nitrohydroxylamine and with benzenesulphonhydroxamic acid; non-exist-ance of the nitrosyl of A. Angeli,

and Indovina, Renato, diazo-compounds. VI. Action of dilute solutions of alkalis on diazonium salts. VII. Diazoresins. VIII. Coupling and oxidising power of normal diazotates during their decomposition. IX. Reversion of isodiazotates into normal diazotates; its application in dyeing and in negative diazo-type [printing]. X. Rapid preparation of solutions of alkali

Constitution of diazonium salts and of alkali diazotates, A., 199, 328. Russo, M., and Rodriguez, A., azo-compounds of fuchsin, A., 1243.

diazotates from diazonium salts. XI.

Odell, A. D., and Marrian, G. F., acidhydrolysable combined form of pregnandiol in human pregnancy urine, A.,

Odell, W. W., carbonisation of carbonaceous materials, (P.), B., 52. Combustible gas, (P.), B., 819. Carbon black, (P.), B., 485.

Odén, S., and Sjöberg, K., dry matter production and metabolism in certain cultivated plants. III. Causes of nitrogen intake and protein formation, A., 1431.

Odenwald, R. See Klumb, H. Odiette, D. See Truhaut, R., and Verne, J. Odinov, A. I., lungs and ketone metabolism, A., 1018.

See also Leites, S. M.

Odintzov, P. N., Tsipkina, M. N., and Egorova, L. V., components of cottonseed hulls, and their chemical properties, B., 474.

Odone, F., Volta effect and Peltier effect, A., 924.

O'Donnell, R. W. H., Reed, F. P., and Robertson, A., synthesis of rotenone and its derivatives. IX., A., 733. See also Hilton, W.

Oechler, \underline{E} . See Leonhardt, H.

Oechler, F. See Schopf, C.
Oechsle, G. A., dispersion of a coating mix [for paper], B., 981.

Oeda, H., catalytic hydrogenation of acetone compounds of a-hydroxy-acids, A., 189. Action of liquid ammonia on acetone compounds of a-hydroxy-acids, A., 1092.

Öhman, L. O. See Lindahl, P. E. Öholm, L. W., electrical conductivity, viscosity, and diffusion of certain lanthanum salts, A., 799. Diffusion

of magnesium chloride and nitrate in aqueous solution, A., 1336.

Oelgoetz, A. W., Oelgoetz, P. A., and Wittekind, J., food allergy, A., 1531. Oelgoetz, P. A. See Oelgoetz, A. W. Oelkers, H. A., and Vincke, E., [pharma-

cological] action of arsenic and antimony,

Oelrichs, L., vitamin deficiency, passage of infection, and resistance to disease, A., 903.

Oelsen, IV., influence of the basis metal on the equilibrium of metallurgical reactions, B., 993. See also Körber, F.

Oman, E., graphical calculation of plate columns, B., 768. and Industriekemska Aktiebolaget, evapo-

ration of solutions, (P.), B., 130. Öpik, E., atomic collisions and radiation

from meteors, A., 1046. Oeriu, S. See Balanesco, I. V.

Ørskov, S. L. See Lundsgaard, E. Orström, A. See Lindahl, P. E.

Örtenblad, B. See Myrbäck, K. Oesper, R. E., Priestley, Lavoisier, and Trudaine de Montigny, A., 1482. See also Cohen, Stuart.

Oestberg, O., citric acid in blood and urine, A., 1141.

Ostby, O. See Jermstad, A. Oesterreichisch-Amerikanische Magnesit Akt.-Ges., recovery of compact metallic magnesium from magnesium dust by sublimation, (P.), B., 154. Metals [magnesium], (P.), B., 1049. Metallic magnesium (P.), B., 1049. nesium from magnesium oxide, (P.), B.,

Oestreicher, T. See Wetzel, R. Oetjen, J. H., and Engelhard, Inc., C., gas-analysis apparatus, (P.), B., 579.

Oettel, H., approximate rapid determination of barbital content of urine and

drugs, A., 363. Oettingen, W. F. von, and Deichmann-Gruebler, W., relation between chemical constitution and pharmacological action of phenylhydrazine derivatives, A., 373. Toxicity and potential dangers of crude "duprene," A., 758.

Deichmann-Gruebler, W., and Hueper, W. C., pharmacological action and pathological effects of alkyl thiocyanates in relation to chemical constitution and physical-chemical properties, A., 890. Toxicity and potential dangers of phenylhydrazine zine chloride, A., 893.

Hueper, W. C., Deichmann-Gruebler, W., and Wiley, F. H., β -chlorobutadiene (chloroprene): its toxicity and pathology and the mechanism of its action, A., 758.

See also Wiley, F. H.

"Ofag" Ofenbau Akt.-Ges., and Lahr, K. von der, open-hearth furnaces, (P.), B., 721. Ofenbau-Ges. Berg & Co., G.m.b.H., fuel oils, (P.), B., 630.

Offe, H. A. See Tschesche, R.

Offerhaus, O., and Baert, C. G., anæsthetics, especially cocaine and novocaine, in connexion with illicit traffic, B., 219.

Offerman, E. K., Buchholtz, H., and Schnlz, E. H., production and properties of steels made from carbonyliron, B., 1209. Ofner, R., Ofner's method of determining small amounts of invert sugar, B., 711.

Ogait. See Bachmann, W.

Ogandshanova, H.Seo Kljatschko-Gurvitsch, L. L.

Ogarinov, A. F. See Mamuikin, P. S. Ogata, A., and Hirano, S., male sex hormone. IV. Hormone from testis of

swine. II., A., 644. Sano, S., and Mitsui, K., influence of 3:5-di-iodotyrosine on experimental arteriosclerosis, A., 100.

Ogata, T., cyanine dyes. VIII. Synthesis of 8-methyltrimethinethiocyanine derivatives and the reactivity of the 8-methyl group, A., 869.

Ogawa, E., exchange reactions between heavy water and hydrogen compounds, A., 819. Exchange reactions between heavy water and amino-acids and carbohydrates, A., 973. Mechanism of isotopic exchange reactions, A., 1043. Isotopic separation of oxygen, chlorine, bromine, and nitrogen by chemical methods, A., 1079.

Ogawa, M., nutritive value of canavanine (amino-acid). III. and IV., A., 885, 1408.

See also Goto, K.

Ogawa, S., and Terazaki, K., whiteware materials discovered in Korea, B., 497.

Ogawa, Y., and Nishikata, E., throwing power. I. Method for its determination and its definition, B., 551.

Ogden, G., electrolytic separation of the oxygen isotopes, A., 170.

See also Applebey, M. P.

Ogg, R. A., jun., mechanism of addition of halogens to ethylenic linkings, A., 310. Mechanism of decomposition of ethylene iodide, A., 684.

Ogg, W. A., zine smelting, (P.), B., 505. Ogg, W. G., soils of Scotland. III. Central valley and southern uplands, B., 383.

Ogievski, V. M., and Schapatin, V. A., inflammability of sulphido dust in

mining pyrite ore, B., 198.

Ogilvie, J. See Nat. Aniline & Chem. Co.
Ogilvie, J. W., gastric secretion in anamia,
A., 230. Gastric secretion in ceeliac disease, A., 504.

Ogilvie, L. See Walton, C. L.

Ognevski, A. F., Schaschkin, I. P., and Kriutschkov, A. P., polymerisation of butadiene recovered from gases passed through the polymerisers, B., 228.

Ogston, A. G., ionisation of amines in alcohol: a possible slow reaction, A., 1074. Micro-potentiometric titrations of normal horse serum-globulins, A., 1529.

and Peters, R. A., potentiometric titrations of vitamin- B_1 and thiochrome, A., 765.

Ogura, M., scattering of X-rays from amorphous substances and their molecular distribution, A., 668.

Ogura, Y. See Yamaguchi, Seizaburo.
Oguri, S., photochemical reactions of cellulose. IV. Relation between wavelength and strength of light from quartz mercury vapour lamp. V. Radiation from the Vitalight lamp, the incandescence electric lamp, and the quartz mercury-vapour lamp. VI. Determination of the transparency of glasses to radiations from the quartz mercury-vapour lamp. VII. Determination of the permeability of various transparent thin plates to radiations from the quartz mercury-vapour lamp, A., 437; B., 655, 1085.

Ohara, I. See Okano, K.

Ohguri, M., blood-sugar content and blood pressure during anaphylactic shock in non-anæsthetised and nonfastened dogs, A., 626.

See also Sato, Hiroshi. Ohio Brass Co. See Sawhill, J. M. Ohl, E. N. See Lamb, A. B.

Ohl, F., water-glass in soaps, soap powders, and self-acting detergents, B., 107. Protective paints for the artificial silk, fibro, and film industries, B., 108. Artificial wool, B., 184. Fish oils in paint media, B., 242. Varnishes for artificial resin products, B., 1006.

Ohle, H., syntheses with 5:6-anhydroisopropylideneglucose; d-glucosyl-6-

phthalimide, A., 826. Euler, E., and Malerczyk, W., syntheses with 5:6-anhydroisopropylidencglucose. III. 6-Glucosylpiperidine, A., 1094.

Friedeberg, II., and Haeseler, G., syntheses with 5:6-anhydroisopropylidencelucose. IV. Derivatives glucosyl - 6 - phenylamine (6-anilino-

chinovose), A., 1491.
and Gross, Werner, reaction of aßdiketonic acids with o-phenylene-

diamine, A., 213.

and Haeseler, G., derivatives of phenyl-

dihydroxypropylamine, A., 1505. and Mertens, W. [with Andrée, M., and Euler, E.], syntheses with 5:6-anhydroisopropylideneglucose. I. 6-Thiol-dglueose, d-glucomethylose-6-sulphonic acid, and 6-acyl derivatives of isopropylideneglucose, A., 192.

and Senger, N., constitution of isopropylidenefurtondicarboxylic acids.

W., hydrochemical analysis. I. [Determination of hydrogen sulphide.] II. Determination of oxygen dissolved in water, A., 577; B., 1238.

Ohlmer, E. See Windheuser, C. Ohlmeyer, P., fermentation velocity of hexosediphosphoric acid and phosphate transfer to adenylic acid, A., 380. Rôle of the adenylic acid system and of cozymase in alcoholic fermentation, A., 1555.

Ohlsen, A. S. See Linderstrom-Lang, K. Ohman, M. F. See Dow Chem. Co. Ohsako, F. See Horiuchi, I.

Ohta, A., influence of quinine derivatives on iodine contents of endocrine organs. II., A., 376.

Oilco Corporation. See Nelson, O. J. Oirbeek, J. van, treatment of electrolytic zinc residues and lead furnace slags in a fusion type gas generator, B., 842. Oiwa, K. See Yamada, K.

Oka, H., mechanism of uric acid excretion

of cinchophen, A., 1145. Oka, S., removal of sulphate from nickel hydroxide by electrodialysis, B., 555.

Oka, T., pathogenesis of tolylenediamine icterus, A., 757.

See also Matsumura, S. Okabe, K., and Titani, T., isotope exchange in soya beans, A., 256. See also Titani, T.

Okać, A. See Dubský, J. V.

Okada, H., difference in action of ter- and quinque-valent arsenic compounds on explanted spleen from chick embryo, A., 105. Has glucose any influence on arsphenamine action on cultivated tissue? A., 108.

Okada, M., properties of deposits of lowcarbon steel in arc-welding, B., 745.

Okada, T., chemical examination of groundwood pulp, B., 880.

and Nakashizuka, S., sulphite pulp from Lauan wood, B., 586.

Okahara, K., components of leaves of Ficus carica, A., 1121.

Okajima, S. See Atsuki, K.

Okamoto, G., Horiuti, J., and Hirota, K. application of transition state method to the heterogeneous reaction on hydrogen electrode; absolute calculation of isotopic interchange reaction velocity, cathodic and anodic currents, and isotopic separation factor, A., 1346.

See also Hirota, K., Horiuti, J., and Mizushima, S.

Okamoto, H. See Ishizaka, N. Okamoto, M. See Nisioka, U. Okamoto, T., properties of nickel and nickel alloys in caustic-processing equipment, B., 375.

Okamura, H., blood of salmon during spawning season, A., 223. Okamura, K. See Tatsumi, M

Okamura, T., change of thermal energy duo to magnetisation in ferromagnetic

substances, A., 671. O'Kane, B. J., application of Debye's theory of polar molecules to solid

dielectrics, A., 409.

Okanishi, T., Hu-man-chiang, A., 1166. Okano, K., and Ohara, I., phlobaphen and durasantalin in colouring matter of Manchurian kaoliang (Andropogon sorghum), A., 125.

Ohara, I., and Kato, J., soya-bean oil foots. I. Isolation of stachyose and

an organic complex, B., 1105. Okatov, A. P., and Emmanuilova, Z. I., interaction of cellulose esters with solvents, A., 287.

and Levina, Z. I., mechanism of desorption of solvent vapours from active charcoal. I., A., 791.

Okaya, T., Liesegang phenomena, A., 563. Okazaki, A., Faraday effect of strong electrolytes in aqueous solutions. III.,

Oke, B. Y., theory of optical activity. III. Regular tetrahedron twisted through a small angle about a binary axis, A., 410. Lattice theory of alkaline-earth carbonates. I. Lattice energy of crystals of aragonite type and their thermochemical applications, A., 1185.

Okell, F. L., and Lumsden, J., iodometric

titration of tin, A., 180.

Oketani, S. See Trillat, J. J.

Okie, F. G., and Minnesota Mining & Manufg. Co., sheet abrasive, (P.), B., 695. Okonite-Callender Cable Co., Inc. See Wiseman, $R.\ J.$

Oku, M., constituents of mulberry tree bark. I. a-Amyrin, A., 1307. Okubo, J., and Satô, Sadaya, Zeeman effect

of thallium I λ 5351 Å, Å., 1168.

and Yamanaka, N., time lag in magnetisation of soft iron in the upper portion of the hysteresis loop, A., 1328. Okuda, H. See Moss, A. E.

Oknda, T., narrow continuous band of

potassium in the extreme red, A., 1039. Okulitch, O., and Eagles, B. A., cheese ripening studies; influence of eonfigurational relations of the hexoses on sugar-fermenting abilities of lactic acid streptococci, B., 1230. See also Eagles, B. A.

Okuno, H., and Kineri, S., electro-osmotic purification of water, B., 430.
Okuyama, M. See Shibata, Rin-nosuke.

Olay, E. See Cerezo, J.

Olbrich, W., dependence of the change in irradiated caseinogen on intensity of irradiation, A., 632.

Olcott, H. S., chemical properties of

vitamin-E, A., 392.

Anderson, W. E., and Mendel, L. B., offect of cereal diets on composition of body-fat of rats, A., 508.

and Mattill, H. A., antioxidants and autoxidation of fats. IV. Lecithin as an antioxidant. VI. Inhibitols, B., 556, 1164.

See also Hamilton, L. A. Old Colony Trust Co. See Spencer, P. L. Oldenberg, O., determination of temperatures of gases from intensities of band spectra, A., 2.

See also Frost, A. A.

Oldenburg, G. See Diepschlag, E. Oldershausen, E. von. See Blanck, E.

Oldershaw, A. W., thirty years' grassland experiments at Saxmundham, Suffolk,

Oldfeldt, C., amino-acids of submaxillary mucoprotein, A., 1011. Mucoproteins, A., 1012.

Oldfield, L. W., composite [lining] material, (P.), B., 97.

Oldham, E. W., Baker, L. M., and Craytor, M. W., determination of free sulphur

in rubber, B., 289.
Oldham, F. D. See MacIntire, W. H.
Oldham, F. K., action of preparations
from the posterior lobe of the pituitary gland on the imbibition of water by frogs, A., 1427.

See also Stehle, R. L.

Oldham & Son, Ltd., and Holt, H., jun., photometers, (P.), B., 241. Electrically detecting the presence of gas or firedamp in mines and other places, (P.), B., 777.

and Mair, T. G., sp.-gr. indicating device [for accumulators], (P.), B.,

See also Goodlass Wall & Lead Industries.

O'Leary, W. J. See Lamar, M. O., an Ridgway, R. R.

Olenov, V.S. See Karshavin, V.A. Oleschko, A. S. Seo Akimov, G. V.

Oleson, J. J. Sco Elvehjem, O. A. Olesov, V. G. Sce Makovetzki, A. E.

Oliensis, G. L., [determination of] heterogeneity of asphalt, B., 991. Olifson, L. E. See Kozlov, N. S.

Olin, B. See Smith, L.

Olin, H. L., and Waterman, W. W., rank of coals as indicated by oxygen absorption, B., 1073

Olin, J. F., and Sharpies Solvents Corp., amines and diamines, (P.), B., 873.

Oliphant, M. L., masses of light atoms, A., 540.

Oliva, G., action of organ extracts on mesobilirubinogen (urobilinogen). Effect of aqueous glycerol extract of liver, A., 1287.

Olive, T. R., lactic acid manufacture from

waste lactose, B., 1122.
Oliveira, A. Q. See Abreu, S. F.
Oliveira, C. See Gross, B.

Oliver, H., and Roberts, K. M., influence of degree of vacuum and time of soaking on determination of apparent porosity and true sp. gr., B., 1023. Oliver, J. See Mackay, E. M. Oliver, T. See Herrmann, G. Oliver, T. C. See Hechenbleikner, I. Oliver, W. See Partridge, H. E.

Oliver, W. F. See Burton, E. F.

Oliveri-Mandalà, E., electronic structure of organic compounds, A., 960. Oliverio, A., 2:3:6:7-tetramethoxyphen-

anthraquinone, A., 1256. System 3:4:3':4'-tetramethoxy- and 3:4:3':4'bismethylenedioxy-benzophenone, A., Thermal decomposition of calcium carbonate, A., 1470.

and Belfiori, O., effect of nitrate ions on the systems Zn°/Ni⁺⁺⁺ in water and Zn°/Ni° in water, A., 1211.

See also Vanzetti, B. L.

Oliveros, R. P. See Semet-Solvay Eng.

Oliveros, S. B. See Adriano, F. T. Olivier, S. C. J., kinetics of synthesis of ketones by Friedel and Crafts' method, A., 297. Olefine formation, A., 1090.

Apparatus for detecting "war gases' [mustard gas], B., 573.

and Ebes, K., m-dinitrobenzene as indicator of the respiration of animal and vegetable cells, Α., 1305.

Olivo, O. M., and Boskovich, M., staining of the nuclei of cells grown in vitro, treated with hypertonic solution, and examined under dark-ground illumination, A., 1436. Examination by dark-ground illumination of nuclei of cells grown in vitro and treated with hypotonic solutions, A., 1436.

Olkers. See Kleinschmidt.

Ollano, Z., photon counters for visible and ultra-violet, A., 543.

Ollard, E. A., and Perring, J. W., practical plating: deposition of copper. II. Acid copper solution, B., 645.

Ollendorff, G., preparation and treatment of [photographic] plates of silver bromide entirely free from colloids,

B., 77. and Andresen, H., accelerators and retarders in the reduction of silver salts, A., 806.

and Rhodius, R., photographic behaviour of colloid-free silver bromido layers, B., 620.

Olliver, M., ascorbic acid content of fruits and vegetables, with special reference to the effect of cooking and canning,

Olmer, D., Olmer, J., Paillas, J., and Vague, J., action on local glycomia, in vivo, of insulin injected intravenously, A., 386.

Olmer, F. See Jolibois, P. Olmer, J., Paillas, J., and Sienasi, B., effect on local glycamia, in vivo, of parathyroid hormone injected intravenously, A., 386.

See also Olmer, D. Olmstead, L. B., minimum water of saturation [in soils], B., 245. Mechanised procedure for determining the sticky point of soils, B., 246.

Olmsted, J. M. D., changes in permeability to glucose of red corpuscles in shed

blood, A., 1399. Olpin, H. P. See Brit. Celanese.

Olsen, C., absorption of manganese by plants. II. Toxicity of manganese to various species, A., 1305. See also Hevesy, G.

Olsen, F., Seavey, F. R., and Cellulose Res. Corp., treatment of cellulose fibres [for preparation of smokeless powder], (P.), B., 637.

Seavey, F. R., Kerone, E. B. W., and Western Cartridge Co., priming composition [for rim-fire cartridges], (P.), B., 699.

See also Scharmann, W. G.

Olsen, J., and Buaas Mejerimaskinfabrikker, Afdeling af A./S. Frederiksberg Metalvareregenerative pasteurisation apparatus, (P.), B., 255.

Olsen, J. C., Smyth, H. F., Ferguson, G. E., and Scheffan, L., determination of the concentration of vaporised carbon tetrachloride, A., 1133.

Olsen, N. S. Seo Universal Oil Products

Olsen, T. M. See Jacobsen, J. II.

Olson, A. R., Libby, W. F., Long, F. A., and Halford, R. S., determination of radioactivity, A., 1082.

and Long, F. A., heats of activation of the related reactions involved when *l*-bromosuccinic acid is treated with chloride ion, A., 569.

See also Young, M. J.

Olson, E. T., and Cleveland Cliffs Iron Co., activated carbon, (P.), B., 582. Production of gases for synthesis, (P.), B., 868. Goos, A. W., and Cleveland Cliffs Iron Co.,

fatty acids, (P.), B., 360.

Twining, R. H., and Cleveland Cliffs Iron Co., alkali alcoholates [alkoxides], (P.), B., 273.

Olson, H. C., and Hammer, B. W., organisms producing a potato odour in milk, B., 426.

Olson, J. W., and Plass, C. E., reflux condenser for use with Erlenmeyer flasks, A., 47.

Olson, K. L. See Smith, G. F.

Olsson, E., A-bands of sulphur, A., 653. Band spectrum of the sulphur molecule, A., 774. Band spectrum of sulphur, A., 915.

See also Kondratéev, V. Olsson, Elis, treatment of fibrous material [wood pulp], (P.), B., 450. Preparation of fibrous material, (P.), B., 491.

Olsson, G. See Edenholm, M. Olsson, K. E. See Seving, F. W. Olszycka, L. See Lévy, J. Olteanu, I. See Marinesco, G.

Omansky, M., and Colledge, Inc., E. W., plastic composition, (P.), B., 510.

O'Mara, R. F., flash-drying for materials of high moisture content, B., 527. See also Internat. Combustion, Ltd.

O'Meara, R. G., and Coe, G. D., froth flotation of southern barite ores, B.,

and Grandrud, B. W., concentration of Georgia kyanite ore, B., 317.

Omnium d'Assainissement, incineration furnaces, (P.), B., 126.

O'Muineachain, P. See Barry, V. C. Ongaro, G., production of cast iron from burnt pyrites in the electric furnace, B., 410.

O'Neil, C. J., and Johns-Manville Corp., paper, (P.), B., 15.

Onischtsehenko, I. K., and Vlasiuk, P. A. action of new kinds of fertilisers on yield and quality of sugar beet, B., 386.

Onishi, M. See Hachihama, Y. Onisimo-Janovski, V. See Beliankin, D. S. Onnen, O. Scc Diels, O.

One, K., and Imote, M., reduction of isosafrole with sodium and ethyl alcohol, A., 329. Decomposition of phenolic ethers. III. Thermal docomposition of piperonylic acid in presence of sand, acid clay, or active carbon, A., 469. Synthesis of vanillin from crosols. I. Synthesis of homopyrocatechol, A., 839. Preparation of thymol from m-cresol [by the phosphoric acid method]. I.—III., A., 980, 1244.

and Oyamada, T., reaction between cresols and hydrogen peroxide in presence of ferrous sulphate, A., 838.

Ono, M. See Takei, S.

Ono, Takeo. See Tanaka, Yoshio. Ono, Toyoki, eel oil. I. Fatty acids, A., 95.

Ono, Y. See Umeda, K.

Onodera, I., and Hasegawa, II., sulphates and chlorides as fertilisers, B., 707.

Onozaki, N., colloid osmotic pressure of the blood in normal and pathological conditions. XIV. Effect of blood transfusion on colloid osmotic pressure in normal and anomic rabbits. XVI. Effect of vegetative nerve poisons, A., 621.

and Sanada, Yukikazu, colloid osmotic pressure of the blood in normal and pathological conditions. XV. Effect of infusions of gum arabic, A., 621. Onsager, L., electric moments of molecules

in liquids, A., 1182.

Ontaneda, L. E., and Ferloni, A. V. J., determination of salicylates in bodyfluids, A., 259.

Ontario Research Foundation, and Schierholtz, O. J., chemical stabilisation of paper, (P.), B., 450.

See also Westman, A. E. R.

Oosima, H. See Tuzi, Z.

Oosterhuis, A. G., and Wibaut, J. P., pyrogenic rearrangement of 3-2-pyridyl-pyrrole, A., 866. a-Nicotine, 1-methyl-2-2'-pyridylpyrrolidine. II. Relation between pharmacological action and chemical constitution in the nicotine group, A., 1276. Dihydronicotyriuc, 1-methyl-2-3'-pyridylpyrroline. II., A., 1276.

Openshaw, H. T. See King, F. E. Ophof, A. J., swelling solution temperature of cassava starch, A., 427.

Opitz, K., influence of the moon on plant growth, B., 292.

and Rathsack, K., significance of straw manuring for [crop] yield and the carbon and nitrogen content of a light soil, B., 1060.
Opotzki, V. F., and Bortnik, L. A., agar-

agar of Black Sea Phyllophora, A., 125. Oppen, F. C., extraction apparatus, A., 583.

Sco also Schuette, H. A.

Oppenheimer, F., intensity of the γ -rays emitted by the active deposit of thorium, A., 918.

See also Bernadini, G., and Hulme, H. R. Oppenheimer, H. R., citrus nutrition, B., 36. Oppenheimer, J. See Dubilier Condenser Co. (1925), Ltd.

Oppenheimer, J. R. Sec Furry, W. H., and Lauritsen, C. C.

Oprean, R. See Benetato, G.

Opticolor Akt.-Ges., colour-record lenticular films, (P.), B., 300. Multicolour filters for use with lenticular films [on projection], (P.), B., 300. Films for projection of coloured and black-andwhite images alternately, (P.), B., 813.

See Oramold Products Corporation. Harrison, L. E., and Rossem, W. J.

Orban, J. Sec Hartmann, Hellmuth.

Orcutt, R. M., and Bogert, M. T., synthesis 6:7-methylenedioxy-1:1-dimethyl-1:2:3:4-tetrahydronaphthalene, A., 1503. Synthesis of 5:6-methylenedioxy-1:1:2trimethylindane from safrole, 1503.

Ore Solvents Corporation. See Traphagen, F. W.

B. Orechkin, D.See Bashkirov,

A. N.

Orechovitsch, V. N., changes in the activity of the dipoptidases in the regenerating tissues of amphibians, A., 1025. Activity of cathepsin and dipeptidases of the tissues of regenerating and normally-developing liver of birds, A., 1298. Conditions for the action of cathepsin in the tissues of the regenerating organs of amphibia, A., 1420.

Orékhov, A. See Konovalova, R., and

Norkina, S.

Orella, P. R., determination of thiocyanates in biological fluids by double distillation, A., 260. Post-mortem transformation of barbituric derivatives into hydrocyanic compounds, A., 1290. Toxicological detection of hydrocyanic acid; detection of poisoning by very small amounts of hydrocyanic acid, A., 1417.

Orelup, J. W., wetting, dispersing, and emulsifying agents, (P.), B., 973. Stabiliser for gasoline, (P.), B., 1139.

Orent, E. R. See Klein, Henry.

Orestano, G., new antipyretic: isopropylantipyrine, A., 375. Mechanism action of ephedrine on gaseous exchange, A., 375.

Orla-Jensen, and Winther, M. O., starch

reaction [in milk], B., 567.

Orlandini, C., natural poisoning of hens by acid sorrel (Rumex acetosella): poisoning by oxalic acid and potassium hydrogen oxalate, A., 532.

Orlenko, A. F., electrocapillary method of detection of cations of first sub-group of group IV., A., 179.

Orligna-Holzbearbeitungs-Fabr. G.m.b.H., Composite covering material for walls, etc., (P.), B., 500.

Orlov, A., granodiorite deposit of Štěnovic (near Pilsen) and its relation to neighbouring massifs, A., 307.

Orlov, N. A., Glinskich, S. A., and Ignatovitsch, N. I., new syntheses of nheptane, B., 181. and Ivanov, I. Z., normal heptane from

shale-oil gasoline, B., 1188.

and Kurbatov, L. M., radioactivity of bituminous shale. I., A., 1226. and Radtschenko, O. A., conversion of

furfuraldehyde into hydrocarbons, A.,

Orlov, N. I., sources of vitamin [-C]. XVI. Action of certain extractants on antiscorbutic activity of pincncedles extract, B., 121. See also Sotova, V. P.

Orlov, S. M. See Lebedev, S. V.

Orlova, A. P. See Klebanski, A. L. Orlova, I. M. See Nikitin, N. I. Orlova, L. M. See Adadurov, I. E.

Orlowski, P., preparation of metal surfaces by etching and removal of fat before coating, B., 550.

Ormont, B. F., maximum valency of elements and atomic structure. III .-V. Maximum valency in formation of hydrides, organometallic compounds, oxides, and halogen compounds. Quantum characteristics of valency electrons and the m.p. of simple substances. VII. Quantum characteristics of valency electrons and the structure and lattice strength of

simple substances, A., 141, 1448. and Petrov, B. A., thermal decomposition of simple and complex cyanides in the formation of alkali metals, especially potassium, A., 1216.

See also Petrov, B. A. Ornitz, N. B., [alloy for] furnace roll, etc., (P.), B., 795.

Ornstein, I., and Vascauteanu, E., polypeptidæmia in pellagra, A., 753. See also Parhon, C. I.

Ornstein, L. S., scattering of neutrons in matter, A., 1441.

Brinkman, H., and Hamada, T., mechanism in the positive column of a dis-

charge, A., 655. Horst, D. T. J. ter, and Frederik, G. H., change of the dipole moment of transformer oil by alteration in practice,

Janssen, C., Horst, D. T. J. ter, Krijgsman, C., and Frederik, G. H., [oxidation of | transformer oils, B., 728.

and Kreveld, A. van, reproduction of photographic graininess by the galvanometer of an instrument for density measurement, B., 1019.

and Veen, J. H. van der, total reflecting power as a function of temperature in the neighbourhood of the Curie point, A., 785.

See also Beezhold, W. F., De Braaf, W., Gribnau, F. B., and Kreveld, A. van. Ornstein, S., and Patmore, L. G., cin-

choninic acid salts of piperazines, (P.), B., 1179.

Orosco, E., chemistry of coffee, B., 714. Orowan, E., crystal plasticity. Dynamic plasticity law. V. Completion of the rate of slip formula, A., 145, 276.

Orozco, G. H., and Chandler Chem. Co., treatment of metal during cold-rolling, (P.), B., 331. Orr, J. W., effect of interference with the

vascular supply on induction of dibenzanthracene tumours, A., 883. See also Berenblum, I.

Orr, W. J. C., exchange of deuterium between deuterium hydroxide and ethyl alcohol, A., 1203. Refractive index of deuterium, A., 1447.

Orrù, A., behaviour of the electrical conductivity of the yolk of the hen's egg with change of temperature, A., 877.

Orshechovski, P. M., and Chait, K. B. determination of moisture by means of calcium carbide, A., 1219.

Ort, J. M., and Christiansen, W. G., influence of certain salts on morphine toxicity and narcosis in mice and rats, A., 1294.

Orten, J. M., mechanism of the hæmatopoietic action of cobalt, A., 1414.

and Smith, A. H., serum-bilirubin content of the blood of rats consuming a ration deficient in inorganic salts,

A., 1529. Orth, O. S. See Elhart, W. P.

Orth, P., use of p_H determinations in sugar industry, B., 212

Orth, R. T. See Marconi's Wireless Telegraph Co.

Orthmann, A. C., [physical and chemical tests on] white leather; report of a Committee [of the American Leather Chemists Association], B., 897.

Ortiz, O., bread-making with cassava, B., 1123.

Ortmann, W., manufacture of [viscose] artificial silk with electro-spinning centrifuges, B., 1085.

Ortner, G., determination of sulphidesulphur in pyrites, B., 884.

Orzechowski, G., permeability to ions of the isolated frog's heart, A., 1547.

Osann, B., testing strength of cast iron, B., 411. Fine-grained castings: production by correct additions or by

superheating, B., 550.
Osborne, (Mlle.) D. See Castagné, R.
Osborne, G. C., microanalysis of textile fibres. IV. Structure of flax, manila, and jute, B., 924.

Osborne, R. A., and Wilkie, J. B., Kjeldahl IV. Metallic catalysts and method. metallic interferences, A., 42.

Osborne, W. M., hardwood sulphite bleaching, B., 1200.

Osburn, M. R., and Lipp, J. W., fumigation of fresh fruit to destroy adult Japanese beetle, B., 296.

See also Lipp, J. W.

Osburn, O. L., Wood, H. G., and Werkman, C. H., determination of volatile fatty acids by the partition method, A., 1133.

Oschman, N. See Fuchs, N. Oseland, C. See Collins, F. L.

Osetrova, E. D. See Tschelincev, G. V. Osgood, E. E., normal hæmatological standards, A., 92.

Osgood, G. H., and Peterson, R. G., adhesive, (P.), B., 291. Wood-ply construction, (P.), B., 992.

Osgood, T. H., soft X-ray spectra of aluminium and magnesium: wave-

length measurements, A., 3. O'Shaughnessy, F. R. See Whitehead, H. C.

O'Shea, M. See Lyons, J. Oshima, G., β -glycuronosidase. III. and IV., A., 1418.

Oshima, S., antifouling paints, B., 205.

Oshima, Y., high-pressure chemical industries in Japan, B., 671.

Oshima, Yasuyoshi, tannin of Formosan tea leaves, A., 1387.

Osipov, V. N., preparation and properties of some lower acids of phosphorus. I. and II., A., 1476.

Oskamp, H. E., dehydration apparatus,

(P.), B., 721.

Oskamp, J., soils in relation to fruit growing in New York. VI. Tree behaviour on important soil profiles in the Williamson-Marion area, Wayne County. VIII. Tree behaviour on important soil profiles in the Medina-Lyndonville-Carlton area, Orleans County, B., 36, 562. See also Batjer, L. P.

Oskerko, A., hydrazides of unsaturated fatty acids, A., 1097. Azides of unsaturated fatty acids, A., 1097. Hydrazides and azides of naphthenic acids,

Osnabrücker Kupfer- & Drahtwerk, copper alloys and heat treatment thereof, (P.),

Osnizkaja, L. K. See Butkevitsch, V. S.

Osnos, M., and Telefunken Ges. für Drahtl. Telegraphie m.b.H., temperature-regulating system, (P.), B., 128.
Osswald, E. See Glocker, R.
Osswald, H. See Brintzinger, H.

Osswald, P., determination of small amounts of nitric acid [in sulphuric acid], B., 316.

Ostachevskaja, A. L. See Lomakin, B. A. Osterberg, A. E., and Chem. Foundation, Inc., medicinal preparation [coal-tar ointment], (P.), B., 523.

See also Bargen, J. A.

Osterberg, H., new form of crystalline quartz at -183.5°, A., 672.

See also Taschek, T.

Osterhof, H. J. See Gehman, S. D. Osterhout, W. J. V., mechanism of salt absorption by plant cells, A., 256. Chemical restoration in Nitella. II. Restorative action of blood, A., 531. Changes of apparent ionic mobilities in protoplasm. I. Effects of guaiacol on Valonia, A., 1431.

Ostern, P., and Baranowski, T., chemical reactions in muscle. X., A., 104. and Guthke, J. A., initial transformations

of glycogenolysis: function of hexose monophosphoric ester, A., 370.

Guthke, J. A., and Terszakowee, J., initial transformations of glycogenolysis: function of hexosemonophosphoric ester, A., 630. Hexose monophosphate and its conversion into fructose diphosphate in muscle, A., 1546. See also Parnas, J. K.

Osterstrom, R. C., and Pure Oil Co., polymerisation of hydrocarbon oils, (P.), B., 681.

See also Wagner, C. R.

Osterwalder, A., fermentation of oversulphured grape must, B., 214.

Osthaus, K. H., leakage of crude gas through the walls into the flues of coke ovens and its influence on the heating of the ovens, B., 1026.

Ostoschevski, I., rapid method for determining moisture content of ceramic materials and products, B., 933.

Ostro Research Laboratories, Inc. See Tolstoouhov, A. V.

Ostrofsky, M., Bleick, W. E., and Breit, G., effects of exchange forces on the excitation function of Li⁷ under proton bombardment, A., 543.

Breit, G., and Johnson, D. P., excitation function of lithium under proton bombardment, A., 265.

Ostrogovich, A., laboratory apparatus, A., 183.

and Ostrogovich, G., y-triazines. XXXII. Catalytic hydrogenations in the triazine group. I. Conversion of dihydroxymethyltriazine into the socalled trigenic acid of Liebig and Wöhler, A., 616.

Ostrogovich, G. See Ostrogovich, A. Ostromislensky, I. I., and Medico Chem. Corp. of America, sodium 1-phenyl-2:3dimethylpyrazolonyl-4-aminomethylene sulphoxylate, (P.), B., 762. Dimethylpyrazolonyldiphenyl, (P.), B., 762. pyrazolonyldiphenyl, (P.), B., 762. Crystallisation, and purification of 4:4'di-(1-phenyl-3-methyl)pyrazolonyl, (P.), B., 762. Chemically pure 4:4'-di-(1phenyl-3-methylpyrazolonyl), (P.), B., 1179.

Ostroshinskaja, G. I., preparation of Freund's acid from a-naphthylamine-3:6:8-trisulphonic acid, A., 717.

Ostroumov, E. A., composition of titanium nitride, A., 690. Separation of bismuth from lead and copper, A., 1083. Separation of iron, aluminium, and chromium from manganese, cobalt, and nickel with pyridine, A., 1222. Precipitation of uranium, and its separation from alkaline-earth metals by means of pyridine, A., 1353.

See also Tscherviakov, N. J. Ostroumov, M. A. See Makovetzki, A. E. Ostrovai, E. J. See Butkov, N. A.

Ostrovski, I. N., and Schereschevski, I. L., preparation of calcium and sodium hydrogen sulphides, A., 1216.

Ostwald, Walter, combustion of motor fuels, B., 775.

Ostwald, Wolfgang, electrolyte congulation of weakly solvated sols and electrolyte activity. I. II. Influence of sol concentration on flocculation value. III. Flocculation by reversing electrolytes, A., 157, 679, 795.

and Siehr, A., foaming analysis, A., 1080. and Walter, R., molecular and colloid solubility of acid and salt dyes, especially benzopurpurin. I. Sol-ution of acid dyes in sodium hydroxide. II. Solution of acid dyes in sodium hydroxide+neutral salt and in sodium hydroxide+ethyl alcohol, A., 1338, 1460.

and Wannow, H. A., electrolyte coagulation of weakly-solvated sols and electrolyte activity. IV. Arsenious sulphido sols in concentrated acids, A., 1200.

See also Lloyd, J. U.

Osugi, S., Aoki, S., and Morita, S., abnormal acid soil. II., B., 33.

and Morita, S., inorganic colloids in soils. I., B., 1114.

and Nishigaki, N., micro-determination of alumina: distribution of watersoluble alumina in tea-garden soil of Uzi district, Kyoto, Japan, B., 660.

Nishigaki, N., and Yoshimi, M., abnormal acid soil. III., B., 949.

O'Sullivan, C. M. See McBain, J. W. Oswald, A. See Karrer, P.

Osweld Railroad Service Co., and George, H. S., surface hardening of rails, (P.), B., 1045.

Ota, H. See Kamita, K. Ota, S. See Yamazaki, K. Ota, W. Sec Iwasé, K. Ota, Y. See Ueno, S.

Otani, H., action of mould enzymes on benzene derivatives of amino-acids and dipeptides, A., 382. Mould enzymes splitting nucleic acid, A., 382. Proteolytic enzymes of Aspergillus niger, A., 382. Nitrogen distribution in protein of mouse typhoid bacillus, A., 385.

Otani, M. Šee Tanahashi, T. Otero, E., and Montequi, R., determination of tungsten with hydroxyquinoline, A., 953.

Othen, C. W. See Davies, W. C. Othmer, D. F. See Eastman Kodak Co. Othmer, M. E., McCabe-Thiele diagram in extraction problems, B., 768. Otis, A. N. See Gen. Electric Co.

Otomo, S., moulds growing on soya-bean cake, B., 251.

See also Kondo, Seiji.

Otomo, Y., production of glycogen in the liver from sugars, A., 878.

and Nagao, S., rendering liver completely free from glycogen, A., 630.

Otsuka, H., vapour-phase cracking of gas oil, B., 818.
Otsuka, I. See Sasaki, Takaoki.
Otsuka, Y., determination of free acid in

aluminium sulphate, I. Crystallisation method. II. Extraction method, B.,

Ott. C. J. See Bataafsche Petroleum Maats.

Ott, E., Krämer, K., and Faust, W., strongly reducing substance accompanying ascorbic acid in the adrenals of the ox, A., 1568.

Ottawa, H. See Wieland, H. Otte, O. M., and Allegheny Steel Co., treatment of metallic materials [silicon iron alloys], (P.), B., 280. Ottensmeyer, H. See Weltzien, H.

Ottensooser, F., oligodynamic activity of silver oxide and of katadyn silver, B.,

Ottenstein, B., and Pastinszky, S. von, therapy of enzymes in experimental rat tumours, A., 882.

See also Nekam, L., jun.

Otterbein, G. See Ardenne, M. von.

Ottman, F., water- and weather-proofing of magnesia cement, (P.), B., 596. Otto, A. H. J. See Universal Oil Products

Co. Otto, C., regenerative oven, (P.), B., 678.

Construction of heat-regenerators, (P.), B., 721.

Otto, F. See Anschütz, L. Otto, G., protection of vegetable-tanned leather against deterioration by acid, B., 70, 706. Theory and practice of leather dycing, B., 450.

Otto, H., rôle of manganese in minerals,

A., 308.

A., 308.
Otto, J. See Henning, F.
Otto & Co., G.m.b.H., C., coke ovens,
(P.), B., 52. Chamber ovens, (P.),
B., 437, 627, 729, 867.
Otto & Sons, A. T. See Buddeberg, W.
Ottolino, G. See Ciusa, R.

Ouellet, C., photo-electric emission and surface chemistry, A., 3.

Ourousoff, N. See Marschalk, C. Outhouse, E. L., phosphoric esters in normal and malignant tissues, A., 230. Aminocthyl phosphate from tumours, A., 364.

Overath, W., prevention of corrosion by the phosphate process, B., 994. Overbaugh, S. C., Allen, C. F. H., Martin,

E. L., and Fieser, L. F., γ-phenylbutyric acid, A., 467.

Overbaugh, W. V. Scc Texaco Development Corp.

Overbeek, J. van, different action of auxin-a and of heteroauxin, A., 768. Lightgrowth response and auxin curvatures of Avena, A., 1164. Symptoms of boron deficiency in Zea mais, B.,

Overbeek, J. T. G., dielectric constant of colloidal systems, A., 794. Dielectric constant of lyophilic colloids, A., 1067.

See also Errera, J., and Rutgers, A. J.

Overberg, L. S. See Feist, K. Overbye, D. A., and Schoetzow, R. E.,

assay of camphor liniment, B., 170. Overhoff, J., Boeke, J., and Gorter, A.,

 β -(2-pyridyl)alanine, A., 734. See also Wibaut, J. P.

Overholser, E. L. See Overley, F. L. Overholser, M. D. See Nelson, W. O., and Weller, D.

Overley, F. L., and Overholser, E. L., fertiliser studies with Jonathan apples on Euphrata fine sandy loam, B., 71. Fertiliser studies with apples, B., 385. Overholser, E. L., St. John, J. L., and Groves, K., spray-residue removal,

B., 392. Overman, C. B. See Wingfield, B.

Overton, E. See Cave, D. B. Ovitz, F. K. See Kreisinger, H.

Ovtschinnikov, B. N. Sce Karshavin, V. A. Ow-Eschingen, M., metal coatings on celluloid substitutes, (P.), B., 895.

Owen, B. B., determination of transference numbers in dilute solutions from limiting ionic conductances, A., 292.

and Foering, L., normal potential of the silver-silver bromide electrode from 5° to 40°, A., 1341.

Owen, E. A., and Pickup, L., lattice constants of beryllium, A., 142.

and Richards, T. L., thermal expansion of beryllium, A., 1192.

and Roberts, E. W., thermal expansion of the crystal lattices of cadmium, osmium, and ruthenium, A., 1192.

and Williams, E. C., study of copper-tin alloys by X-ray analysis, A., 675.

and Yates, E. L., X-ray measurement of the thermal expansion of pure nickel, A., 557.

Owen, E. C., determination of sulphate; conditions necessary for precipitation of benzidine sulphate, with special reference to determination of sulphates in urine, A., 442,

Owen, G. See Rowe, F. M. Owen, J. R. See Heller, V. G.

Owen, O., chemical investigation; chlorate weed killers; effect of steaming on availability of potassium and phosphoric acid in tomato soil, B., 708.

Owen, S. E., reaction of fish to sex hormones, A., 901.

See also Cutler, M.

Owen, W. D., works tests on plastic materials and products, B., 380.

Owen, W. H., apparatus for removal of solid or liquid matter from gases or

vapours, (P.), B., 624. Owen, W. L., and Mobley, R. L., bacteriological standards for refined cane sugars, B., 212. Bacteriological standards for [deterioration of] refined sugars, B., 711. Owens, C. W., jun. See Greaves-Walker,

 $A.\ F.$ Owens, H. S. See Thomas, A. W. Owens, J. C. See Todd, J. D.

JamesS. See Duffendack,

Owens, John S., twenty-five progress in smoke abatement, B., 965.

Owens, R. D. J. See Bury, C. R. Owens, R. J. See Fraser, Hugh J.

Owens-Illinois Glass Co. See McBurney, J. E.

Oxford, A. E. See Birkinshaw, J. II.
Oxford Varnish Corporation, decoration of hard surfaces, (P.), B., 894. Apparatus for decorating the surface of articles, (P.), B., 1109. [Surface-] decoration of articles and apparatus therefor, (P.), B., 1220. See also Eichstädt, K.

Oxley, C. D., progress of lactation in relation to milk yield and butter-fat percentage of milk produced by cows of the Shorthorn type, A., 97.

Oxley, H. F. See Brit. Celanese. Oxweld Acetylene Co. See Lytle, A. R., and Miller, W. B.

Oyamada, T., general method for synthesis of fiavonol derivatives, A., 341. See also Ono, K.

Ozaki, J., and Kasai, B., unsaponifiable matter of chrysalis oil, A., 1137.

Ozark Chemical Co. See Davis, S. H. Ozenbaugh, E. F. See Cave, D. B. Ozerski, G. M., preparation of crystalline naphthalene, B., 970.

Ozieblo, L. See Szperl, L.

P.

Paal, H., and Motz, G., electrometric determination of iodine in blood and tissues, A., 1308.

Paasche, J. A., prevention of offset of ink in printing operations, (P.), B., 206.

Paauw, F. van der, action of hydrocyanic acid on carbon dioxide assimilation and respiration of Stichiococcus bacillaris, A., 373.

Pabst, A., vesuvianite [and grossularite] from Georgetown, California, A., 585.

Pabst, E. See Wagner, H.

Pace, B., solder for aluminium, (P.), B., 844.

Pace, D. M. See Mast, S. O. Pacheco, G. See Rodrigues, C

Pachniewicz, A., artificial silk, (P.), B., 1087. Pachomova, E. See Fabritziev, B.

Pacific Coast Borax Co. See Connell, G. A., and Newman, A.

Pacific Mills. See Barnard, K. H.

Pacilly, C. C. P., action of aliphatic carbimides on hydrazine derivatives,

Pacini, A. J., and Amer. Research Products, antirachitic substances, (P.), B., 1130. and Linn, D. R., vitamin-E unit, A., 648. See also Near, H. B.

Packie, J. W. See Standard Oil Development Co.

Pack, R. W., and Sun Oil Co., revivification of sodium bicarbonate solution, (P.), B., 318.

Packendorff, K., stirring apparatus for small amounts of liquid, A., 306.
Pacsu, E., structures of isopropylidene

derivatives of galactose-, glucose-, and mannose-dibenzyl mercaptals, A., 1491.

and Green, J. W., synthesis of glycofuranosides, A., 1365.

Pacurariu, I. See Michail, D.

Pacz, A. See Aluminum Co. of America.

Padberg, C. See Wespy, C. R. C. C.
Padgett, F. W. See Alco Products, Inc.
Padis, K. E. See Hammett, F. S., Medes, G., and Shinohara, K.

Padmanabhan, R. See Jatkar, S. K. K. Padoa, M., and Garilli, D., action of per-

oxidase, A., 636.

Paech, K., regulation of protein exchange and condition of proteolytic enzymes in plants, A., 121. Anaërobiosis in higher plants, A., 1162.

Pagano, A., gaseous exchange after injection of adrenaline in cocks and owls, A., 385.

See also Zummo, C.

Page, A. B. P., determination of fumigants. II. Improved vacuum apparatus for measurement of gas concentrations, B., 77.

and Gloyns, F. P., determination of fumigants. IV. Detection of residues of hydrogen cyanide. V. Determination of hydrogen cyanide evolved from discs of wood pulp, B., 861.

Page, A. G. See Union Oil Co. of California. Page, G. R. See Hampshire, C. H. Page, H. C. See Callender's Cable & Con-

struction Co.

Page, I. H., acetyl- β -methylcholine (mecholine); action on blood pressure, skin temperature, and the heart as exhibited by electrocardiograms of hypertensive patients, A., 374. Highly active pressor substance from cerebral ventricular fluid of human beings, A., 374. and Bernhard, W. G., cholesterol-induced atherosclerosis: prevention in rabbits by feeding an organic iodine compound, A., 364.

and Heuer, G. J., effect of renal denervation on patients suffering from

nephritis, A., 752.

Kirk, E., Lewis, W. H., jun., Thompson, W. R., and Van Slyke, D. D., plasmalipins of normal men at different ages, A., 92.

See also Pasternak, L.

Page, J. E. See Dippy, J. F. J.

Page, J. M., jun., specific refraction of commercial paraffin waxes in liquid and solid states, B., 867.

Page, J. O., and Englis, D. T., effect of potassium cyanide on amylase activity.

Page, T. L., composition of the planetary nebulæ, A., 1356.

Pagel, H. A., and Carlson, W. W., photo-chemical reaction between bromine

and water, A., SOS.

Noyce, W. K., and Kelley, M. T.,
dehydration of hydrated cobaltic oxide, A., 174.

Pagel, W., demands of the user of freecutting steels, B., 1156.

Paget, M., and Guyader, G., zinc-ferrocyanide deproteinisation and nitrogen compounds of the plasma, A., 746.

and Levin, G., chemistry of crystalline humour, normally and in cataract, A., 751.

See also Langeron, L.

Paget, R. F. See Gamble, W. H.

Pahl, M., and Faessler, A., application of the Geiger point-counter to the measurement of small X-ray intensities, A., 1325. Pahlke, H. See Roth, W. A.

Païc, M., absorption spectra of cerebro-

spinal fluid, A., 113\$.

and Deutsch, (Mlle.) V., adsorption of proteins; influence of p_H on adsorption of hæmoglobin by kaolin; influence of salts on adsorption of hemoglobin by kaolin, A., 676, 792.

See also Levaditi, C.

Paice, E. S. See Farmer, E. H.

Paige, J. F. See Mills, Ltd., W.
Pailer, M. See Spath, E.
Paillard, H. Seo Briner, E.
Paillard, H. See Olmer, D., and Olmer, J.
Paine, C. See Imperial Chem. Industries. Paine, H. S. See Lothrop, R. E.

Paine, R. E., and Magnesium Development Corp., [magnesium] alloys, (P.), B.,

239, 331, 603. Magnesium-base alloys, (P.), B., 376. See also Aluminium, Ltd.

Painter, E. P., and Franke, K. W., sclenium

in proteins from toxic food-stuffs. III. Removal of selenium from toxic protein hydrolysates. II. Effect of acid hydrolysis, A., 96; B., 522. Determining total sulphur in plants and proteins, A., 909.

See also Franke, K. W.

Painter, K. D., Cady, H. P., and Henson,
G. C., inhalant capsule, (P.), B., 620.
Painter, R. K., Moreton, H. H., and Hill,

C. W., bituminous emulsion, (P.), B., 969.

Paisseau, G., Boegner, and Vaille, C., infantile dehydration, A., 1015.

Pajeau, R., action of excess of bromine on benzene derivatives in presence of beryllium bromide, A., 976.

See also Taboury, M. F.

Pak, C., and Read, B. E., comparative action of methylephedrine and ephedrine. I. Systemic effects. II. Bronchial effects. A., 1416.

Pakschver, A., and Efimov, P., purification of ventilation gases of the viscose-spinning room, B., 14.

and Margulis, M., recovery of viscoseprecipitating baths, B., 14.

Paksin, I. N., and Suvorovskaja, N. A., fatigue of cyanide solutions, B., 883. Pal, B. N. See Das, B. M.

Pal, H. K., and Guha, A. C., crystal structure of hexacthylbenzene, A., 783.

Pal, J. C. Seo Guha, B. C.

Pal, N. L., pH and titratable acidity at different stages of fruit ripening, A., 1163.

and Chatterji, U. N., effect of insulin on plant respiration, A., 767.

Palache, C., pseudobrookite, A., 50. Minerals of Franklin and Sterling Hill, New Jersey, A., 50.

Palacios, J., and Foz, O. R., molecular structure of quinhydrone, A., 784.

and Galloni, E. E., crystalline structure of calcium sulphate dihydrate (gypsum), A., 1186.

and Garcia de la Cueva, J., study of the orientation of inclined aluminium wires and foil by means of Weissenberg's Röntgen goniometer, A., 1186.

and Rivoir, L., space-group of calcium sulphate dihydrate, A., 783.

and Téllez-Plasencia, H., biological action of radiations; selectivity factors. I. Time factor, A., 1413.

See also De la Cierva, P., and Garcia de la Cueva, J.

Paldhikar, G. G., Maxwell effect in liquids, A., 780.

Palei, A. M., soapstone as a lining for sinter zone of rotary cement kilns, B.,

Palei, P. N., sulphide-carbonate equilibrium in mineral waters, A., 1482.

Palfray, L., apparatus for catalytic hydrogenation at high pressure, A., 446. Determination of methoxyl and ethoxyl groups, A., 493. Apparatus with plane glass joints for fractional distillation in a vacuum, A., 956.

and Sabetay, S., catalytic hydrogenation under high pressure; essential oils

and esters, A., 729.

Palit, C. C., and Dhar, N. R., oxidation of glucose in presence of insulin, glutathione, and other substances, and the probable mechanism of biological oxidations, A., 1491.

Palkin, S., precision oil gauge, A., 47. Design of pressure control assembly,

A., 47. Pall, D. B., method for accurate titrations, A., 1355.

and Maass, O., liquid densities of propylene and methyl ethyl ether as determined by a modified dilatometer method, A., 673.

Palladin, A. V., micro-determination of

creatine in muscle, A., 499.

Borshkovski, S., and Palladina, L., influence of fatigue on glutathione content of muscle, A., 510.

and Koldaev, B. M., influence of preliminary training on lactic acid content of blood after intense work, A., 496.

Palladina, L., and Persova, E., chemistry of fatigue, A., 1144.

and Raschba, H., brain-creatine during the ontogenetic development of vertebrates, A., 1535.

Rasehba, E. J., and Gelman, R. M., chemical composition of various divisions of the nervous system, A.,

Palladina, L., influence of muscular work on oxidative processes in the animal organism, A., 508.

See also Palladin, A. V.

Palladina, O. K., increased variety in margarines, B., 664.

and Krotova, T. A., intestinal bacteria in milk products, B., 250.

Mazjukevitsch, V. A., Milova, E. L., and Grigorieva, N. S., aroma of fermented milk, B., 250.

Pallas, V. R., heat-treated oiled filament, (P.), B., 451. Dyeing of solidified drying oils, (P.), B., 451.

Pallaske, G. See Schieblich, M. Pallet, V. L., dyeing and scouring of angola [cotton + wool] yarn, B., 16.

Pallmann, L., disc grinding mills, (P.), B., 1135.

Pallu. See Faure, A.

Palma, T. S., and Gerasimov, P. D., nitration of cotton filtering fabrics, B.,

Palmaer, W., electrolytic method of removing small quantities of iron from solutions of aluminium salts,

Palmer, A. E.See Stieglitz, E.J.

Palmer, D. F. Palmer, E. T. See Horne, W. T.

See Drummond, J. C. Palmer, E. W. See Smith, Cyril S.

Palmer, F. R., and Carpenter Steel Co., free-machining ferrous alloy, (P.), B., 937. Free-machining carbon steel, (P.), B., 937. Free-machining alloy steel, (P.), B., 937. Free-machining structural [steel] alloy, (P.), B., 937.

Palmer, G. H., utilisation of cotton plant, (P.), B., 95. Utilisation of cotton-plant

cellulose, (P.), B., 539.

Palmer, J. W. See Meyer, Karl.

Palmer, L. S. See Eckles, C. H., Lachat, L. L., Patton, A. R., Rimpila, C. E., and Street, H. R.

Palmer, R. C., Powers, P. O., and Newport Industries, rosin drying oil, (P.), B., 1167. Drying oils for bronzing inks, (P.), B., 1167. Treatment of oils containing tertiary terpene alcohols and products obtained therefrom, (P.), B., 1179.

Palmer, S. L. See Fleming, E. P.
Palmer, W. W. See Foster, G. L.
Palmin, V. V. See Smorodineev, I. A.
Palomaa, M. H., and Siitonen, T. A.,
ether-like compounds. XVII. Constitutive factors in esterification and

hydrolysis, A., 966.

Paltridge, T. B. See McTaggart, A.

Paly, J. I., determination of carbon dioxide in air, B., 396.

Pamfilov, A. V., black paint from peat, B.,

Chudakov, A. S., and Standel, E. G., titanium; chlorination of titanium dioxide, A., 35.

and Fedorova, O. S., black and white electrolytic silver, B., 551. Morph-ology of pigments. IV. Microscopy of soot, B., 894.

and Ivantscheva, E. G., determination of lead dioxide. IV., B., 59. Economising linseed oil in production of oilcloth, B., 67. Preparation of precipitated white lead, B., 205.

and Rosliakova, E. N., stickiness and its

measurement, B., 911.
Rosliakova, E. N., Chudakov, A. S., and Blagonravova, A. A., increasing

viscosity of ground paints, B., 67. and Standel, E. G., chemistry of titanium. III. Decomposition of titanomagnetite concentrato with hydrochloric acid, B., 693.

and Teis, R. V., absorption spectra of iodine solutions. I. Solutions in mineral acids. II. Influence of iodide,

A., 660, 1046.

Pan, C. L., length of exposure to light in relation to plant growth in rice, B., 659.

Pan, F. Y. See Tu, C. M.

Pan, Z. H., and Tang, C. C., method of preventing formation of colloidal nickel sulphide in qualitative analysis, A.,

Panasiuk, P. I. See Losey, I. P. Panayotoponlo, E. S., tyrosine index of serum-polypeptides in the rabbit in tuberculous infection of the Yersin type, A., 101. Amino-acid content of blood of the rabbit in tuberculous infection of the Yersin type, A., 101. Experimental hyperglycæmia in rabbits with tubercle (Yersin type) infection, A., 1016. Sensitivity of blood-sugar to insulin after panereatectomy in dogs, A., 1565.

Panceram, A. See Remy, H.

Pancier, F., natural, sulphur-containing oil from bituminous Jura limestone: its derivatives, B., 1177. Pandittesekere, D. G. See Joachim, A.

W. R.

Pandya, K. C., and Vahidy, T. A., condensation of aldehydes with malonic acid in the presence of organic bases. V Anisaldehyde. VI. p-Hydroxybenzaldehyde. VII. m-Hydroxybenzaldehyde, A., 1377. See also Vahidy, T. A.

Panebianco, G., and Adamoli, C., extraction of beryllium oxide directly from minerals, (P.), B., 593.

Paneth, F. A., rôle of chemistry in atomic transmutation, A., 659.

and Loleit, II., chemical detection of artificial transmutation of elements, A., 132.

See also Fay, J. W. J., and Holmes,

Arthur. Panganiban, C. See Garcia, O. Pangborn, M. C., and Anderson, R. J., lipins of tubercle bacilli. XLI. 1.

Composition of timothy bacillus wax. 2. Isolation of d-eicosan- β -ol and d-octadecan- β -ol from unsaponifiable matter of timothy bacillus wax, A., 311.

See also Crowder, J. A. Panhandle Refining Co. See Sims, W. F. Panizo, F, M, See Bermejo, L,

Panjutin, P., Hindin, L., and Vasiljeeva, O., autoxidation of unsaturated hydrocarbons. I., A., 1345.

Pankov, G. A., and Malinkina, A. S., adsorption of butadiene from gases after passage through scrubbers charged with activated carbon, B., 228.

Pankow, G. W., β -modification of the gutta-percha hydrocarbon, A., 553.

See also Meyer, K. H.

Pannier, R., [method for] micro-extraction of tissues in vacuo at the normal temperature of the animal, A., 1308.

See also Verrier, M. L.
Pannikar, K. P. N. See Joshi, S. S.
Panov, A. A. See Joffe, J. S.

Panseri, C., microscopic metallography of aluminium bronzes, B., 841.

Pantoli, B., rapid determination of P₂O₅ and K₂O in the Neubauer process [for testing soil], B., 514.

See also Galletti, A. C

Pantschenko-Jurewicz, W. von, and Kraut, H., structure and properties of esterases. II. Relationship of ascorbic acid and liver-esterase, A., 1024.

Paolini, V., mercuric salicylate and dithiosalicylate, A., 90. Preparation of pharmaceutical sodium phosphate, B., 43.

Papa, D., and Bogert, M. T., quinazolines. XLIII. Synthesis of a quinazoline derivative structurally analogous to cusparine, A., 1392.

Papadakis, P. E., synthesis of 5:6-benzhydrylidene-1:2-isopropylidene-a-d-glucofuranose; catalytic hydrogenation of acetals of aromatic ketones and sugars, A., 709.

Papapetrou, A., dendritic growth of crystals, A., 412. Free path of conductivity

electrons, A., 1312.

Papavassiliou, M. J., and Libérato, S. N., poisoning of farm stock in Greece by industrial by-products, B., 953.

Pape, W., and Procter & Gamble Co., high-percentage transparent soaps, (P.), B., 558.

Papello, K., light aberration and the Doppler effect, A., 266.

Paper Makers' Association, second report of the Pulp Evaluation Committee, B., 538. Papesch, V., and Burtner, R. R., 5:7-di-

iodo-8-hydroxyquinoline, A., 1123. Papirindustriens Forskningsinstitut.

 $\hat{\mathbf{Z}}$ eiss, C.

Papkov, S., viscosity and constitution of organic liquids, A., 150. Determination of size of micelles from the

swelling of films, A., 794.

and Tsehveleva, M., coagulation of organosols of cellulose nitrate by electrolytes. II., A., 28.

See also Kargin, V.

Papkova-Kvitzel, T. See Kremnev, L. Papp, G. See Szendi, B.

Pappenheimer, A. M. See Goettsch, M. Pappenheimer, A. M., jun., the "sporo-genes vitamin," an essential growth factor for Cl. sporogenes and related

organisms, A., 248.

Paprex Fibre Co. See Clapp, A. L. Parade, G. W., and Foerster, H. R., heart activity and vegetative poisons. II. Effect of intravenous injections of adrenaline and pilocarpine on the heart action, A., 516.

and Jäger, J. G., heart activity and vegetative poisons. I. Effect of intravenous injections of atropine on the heart action, A., 516,

Paraffine Companies, Inc. See Finley, D., and Grosh, E. B.

Paramanova, N. See Serjakov, M.

Paramasivan, S., technique of the painting process in the Brihadesvara Temple at Tanjore, B., 649.

Paramonov, L. I., lead ferrites, A., 301.
Paranipe, G. R., and Bhagvat, N. N.,
transmission of visible light through artificial homogeneous clouds, A., 661.

Paraschtschuk, S., yoghurt, B., 520. Preparation of kephir with pure cultures, B., 904.

Parat, M., and Jacquiert, C., properties of a new vitellin from spiders, A., 1012.

Pardee, F., Pardee, F., $\hat{j}un.$, and Anthracite Separator Co., mechanical separator, (P.), B., 961. Separator, (P.), B., 961. Pardee, F., jun. See Pardee, F. Pardee, H. J., sewage chlorination, (P.),

B., 958.

Parekh, M. M. See Ingold, C. K.

Parera, J., dentifrice pastes, (P.), B., 1235.
Parera, J. A., and Baca, O., analysis of colours from pre-colonial Peru, B., 894.

Parsentiev, T. See Jacyna, V. Parsa-Pondal, I., monazite sand in the

Arosa estuary (Galicia), A., 958. and Fraga-Padin, M. de la E., lithiferous pegmatite from Goyás (Lalin), A., 1227. Parhon, C. C., and Rudeanu, A., hypo-

glyeæmia by conditioned reflex, A., 357. Parhon, C. I., Parhon-Stefanescu, C., and Ornstein, I., rôle of cholesterol in thyroid-ovarian antagonism: ovarian and adrenal cholesterol in thyroidthyroxine-treated cctomised and animals, A., 386.

and Werner, G., constituents of blood after injection of thymus extract, A.,

Parhon-Stefanescu, C. See Parhon, C. L. Parijs, S., system naphthalene-hexachlorocthane, A., 564.

Paris, G. A. W. J. O. E., microchemical

identification of ephedrine and ephetonine, B., 1233.

Paris, R., content of a-glycerophosphate in commercial preparations of the calcium salt and solution of the sodium salt, B., 475.

and Mondain-Monval, P., crystallisation of zinc borate, A., 1079.

Paris, R. R. See Mascré, M. Paris, W. M. See Budnikov, P. P.

Pariselle, H., lead complexes of hydroxyacids, A., 706.

and Chirvani, F., polarimetric study of the formation of complex molybdosaccharates, A., 691.

Parisi, E., and De Vito, G., maturation of cheeses. II. Polypeptides containing phosphorus, B., 810.

Park, B., bismuthate method for [determination of] manganese. II., A., 44. Calculating the blank [in volumetric determinations], A., 302.

Park, C., carbonisation of ramic cellulose studied by means of X-rays and the "net density method," A., 458.

Park, C. F., jun., and Wilson, R. A., Battle Branch gold mine, Auraria, Georgia, A., 700.

Park, \check{C} . R., and Firestone Tire & Rubber Co., pigment [for rubber] and manufacture thereof, (P.), B., 1006.

Park, J. G. See Hofmann, H. E. Parke, J. B., stability of emulsions, B., 75.

See also Wilson, Cecil L.

Parke, Davis & Co., [manufacture of] organic arsenic compounds, (P.), B., 908.

and Clark, L. T., process of obtaining therapeutic products, (P.), B., 1178.

Sco Ferry, N. S., Grote, I. W., and Swingle, W. W.
Parken, E. R. Sce Hunter, R. F.
Parker, A. Sce Walker, T. K.

Parker, Albert, river pollution, B., 350. Water-pollution research, B., 718.

Parker, A. E., vibrational analysis of BaCl and BeCl bands, A., 8. and Parker, A. H., band system of TiCl,

A., 1317. Parker, A. II. See Parker, A. E.

Parker, B. H. See Van Tuyl, F. M. Parker, C. K. See Standard Oil Co. of California.

Parker, E. A. See Sisson, W. A.

Parker, E. R., control of mottle leaf by spraying with zinc compounds, B., 660.

Parker, F. W., relation between equivalent acidity of sources of nitrogen and their efficiency in potato fertilisation, B.,

See also Parker, Ltd., F.

Parker, G. V. See Brown, C. W. Parker, H., and Crabtree, J. I., rapid [photographic] processing methods, B., 1020.

Parker, I., Gutzeit, C. L., Bratton, A. C., jun., and Bailey, J. R., organic nitrogen bases from pyrolysis of cotton-seed meal,

A., 1123. Parker, J. G., quantitative tannin analysis, B., 512.

and Harvey, A., direct extraction of tanning materials for analytical purposes, B., 849.

Parker, L. D. Seo Vickers-Armstrongs, Ltd. Parker, L. R., [product for] belt treatment, (P.), B., 657.

Parker, M. E. See Hammer, B. W.

Parker, R. C., experiments on coagulation by supersonic vibrations, A., 1199.

Parker, R. F. See Hughes, T. P.

Parker, S. I., printing of cotton, B., 188. Parker, W. B. See Brit. Thomson-Houston Co.

Parker, Ltd., F., and Parker, F. W., machines for mixing concrete and other substances, (P.), B., 48.
Parker Pen Co. See Saylor, G. H.

Parkes, A. S., increasing the effectiveness of testosterone, A., 1428.

See also Deanesly, R., Rowlands, I. W., and Zuckerman, S.

Parkes, E. B. See Edwards, F. W.

Parkes, G. D., and Burney, E. D'A., derivatives of 6-bromo- and 4:6-dibromo-m-toluidine, A., 63.

and Fisher, S. J. M., interaction of diazonium salts and acetone-sulphonic acid, A., 313. and Morley, R. H. H., derivatives of

4:4'-diaminodiphenylmethane, A., 718. Reactivity of the methyl group in some nitrodiphenylmethanes, A., 1497.

See also Chattaway, F. D. Parkhurst, F. A., Esselen, G. J., and Fiberloid Corp., thin sheets of cellulose,

(P.), B., 491. Parkhurst, G. L. See Standard Oil Co.

Parkins, W. M., Taylor, A. R., and Swingle, W. W., comparative study of sodium chloride and blood pressure changes induced by adrenal insufficiency, trauma, and intraperitoneal administration of glucosc, A., 238.

Parkinson, J., and Thomson, W. A. R., mercurial (novurit) suppository as a diuretic for cardiac cedema, A., 372.

Parkinson, J. R. See Prideaux, E. B. R.Parks, G. S., amorphous and crystalline

forms of rubber hydrocarbon, A., 1058. Thomas, S. Benson, and Light, D. W., glass. XII. New heat capacity data for organic glasses; entropy and free energy of dl-lactic acid, A., 278.

and Todd, S. S., preparation of isooctane,

A., 701.

Todd, S. S., and Moore, W. A., thermal data on organic compounds. XVI. Heat capacity, entropy, and free energy data for typical benzene derivatives and heterocyclic compounds, A., 557.

See also Crawford, B. L., jun., Ferry, J. D., Lyman, J. C., and Todd, S. S.

Parks, L. R., and Melaven, A. D., hide substance with hydrogen chloride and

ammonia, B., 706.

Parks, W. G., and Campanella, J. L., solubility of lanthanum in mercury from 0° to 50°, A., 675.

and Katz, Jacob, vapour-phase catalytic oxidation of organic compounds;

toluene, B., 682.

and Le Baron, I. M., simultaneous electrodeposition of thallium and zine, A., 687. Co-deposition of metals of the same valency in acid solutions, A., 1343.

and Prime, G. E., solubility of thorium

in mercury, A., 1194.
Robinson, M., and Law, M., fluorides in the natural waters of Rhode Island, B., 1070.

Parle, W. C. See Blasdale, W. C. Parmar, M. U., Mehta, S. M., and Prasad, M., thorium phosphate gels, A., 563. See also Mehta, S. M., and Prasad, M. Parmelee, A. E. See Du Pont de Nemours

& Co., E. I.

Parmelee, C. W., novaculite as a refractory material, B., 497.

and Badger, A. E., determination of mean specific heats at high temperatures of commercial glasses, B., 20. Effects of borax and alumina in glass, B.,

and Lyon, K. C., use of magnesium aluminate (spinel) as a material for

glass-melting containers, B., 20.

Parmelee, H. M. See Du Pont de Nemours & Co., E. I.

Parnas, J. K., enzymic processes in

muscular tissue, A., 518. Lutwak-Mann, C., and Mann, chemical reactions during alcoholic fermentation. II. Theoretical, A., 112.

and Ostern, P., mechanism of glycogeno-

lysis, A., 1546.

Sobczuk, B., and Mejbaum, W., suppression of ammoniogenesis in muscle by pyruvic acid, A., 511. Action of phloridzin on muscular glyeogenolysis, A., 1292.

Parnell, I. W., control of free-living larvæ of bursate nematodes of domestic animals,

B., 38.

Parodi, M., residual rays of magnesium oxide, A., 406.

Paronetto, L. See Amadio, G. Parpart, A. K., permeability of the mammalian crythrocyte to deuterium oxide (heavy water), A., 874. See also Jacobs, M. II.

Parpola, A. Seo Routala, O.

Parr, W., tables for ascertaining raw sugar yields from thick-juice and run-off

purities, B., 165.

Parratt, L. G., resolving power of the twocrystal X-ray spectrometer, A., 181. Effects of chemical binding on the X-ray $Ka_{1,2}$ doublet lines of sulphur studied with a two-crystal spectrometer, A., 262. Excitation potential of $Ka_{3,4}$ satellite lines, A., 262. Excitation potential, relative intensities, and wave-lengths of the Ka" X-ray satellite line, A., 655. Ka Satellite lines, A., 1041. Precision X-ray wave-length measurements, A., 1311. X-Ray satellites, relative intensities, and line widths, A., 1438.

and Miller, F., X-ray diffraction with calcite in several orders of reflexion,

A., 412.

Parraud, G., determination of menthone in peppermint oil by hydroxylamine, B., 44.

Parrish, C. I. See Tropseh, H. Parrish, E. See Wood, J. W.

Parrish, P., apparatus for production of ammonium salts by distillation of concentrated gas liquor, (P.), B., 59.

Calcium superphosphate, B., 833. Fertilisers, (P.), B., 1062. Kitching, W. T., and Burns, W. L., concentrated gas liquor, (P.), B., 820. Parrke, M. W., polysaccharides in sweet

maize, A., 534.

Parrod, J., formation of hydrocyanic acid from organic compounds in presence of ammoniacal copper sulphite, A., 195. Formation of hydrocyanic acid by the oxidation of sugars in presence of ammoniacal copper salts, A., 968.

Parrot, J. L. Sco Ungar, Georges.

Parry, C. P., development of combustion

technique, B., 911.

Parry, E. G. Seo Barr, T.

Parry, E. J., otto of rose, B., 907.

Parry, H. B., effect of liver feeding in

relation to oxygen want, A., 508. Parry, T. W., and Smith, J. A. B., fatty acids of ox blood, A., 746.

Parsche, F., lime-chlorosis of lupins, B.,

Parsons, J. A., and Duriron Co., treatment of silicon[-iron] alloy castings, (P.),

Parsons, $J.\ L.$ See Jackson, $D.\ T.$ Parsons, $J.\ R.$, and U.S. Gypsum Co., cellular ceramic products, (P.), B., 147. Acoustic corrective material, (P.), B., 149. Parsons, L. G. B. See Imperial Chem.

Industries.

Parsons, T., jun., and Bailar, J. C., jun., preparation of methyl-substituted azoand azoxy-benzenes and rearrangement of azoxy-benzenes, A., 463.

Parsy, G., permanent glass electrode for measurement of $p_{\rm H}$ values, A., 582. Principles and mounting of the glass electrode, and measurement of current therewith in determination of $p_{\rm H}$ in the tannery, B., 290.

Part, J. R. See Sutton Manor Collieries. Partansky, A. M., and Benson, H. K.,

analysis of sulphite[-cellulose] waste liquor, B., 365. Anaërobic fermentation of [paper-pulp] sulphite waste liquor by bacteria of fresh-water muds, B., 622.

and Henry, B. S., anaërobic bacteria capable of fermenting waste sulphite

liquor, A., 383.

Partansky, A. M. See Benson, H. K.

Parthasarathy, S., ultrasonic velocities in organic liquids. I. and II. III. Esters and ethers. IV. Halogen compounds. V. Some related groups. VI. Related compounds, A., 277, 673, 929, 1189, 1453. Ultrasonic velocities in liquid mixtures, A., 787. Dispersion of acoustic velocity in organic liquids, A., 1189. Visibility of ultrasonic waves

in liquids, A., 1453.

Partington, J. R., Joan Baptista van Helmont, A., 1356. Origin of modern chemical symbols and formulæ, A., 1356.

and Skeen, J. W., oxidation-reduction potentials in non-aqueous solutions. II., A., 1026.

and Stonehill, H. J., effect of one salt on the solubility of another. VII Solubilities of cobaltammines in aqueous sodium, potassium, and barium thiocyanates, A., 1456. and Stratton, K., heavy water of crystal-

lisation, A., 1070.

See also Cowley, E. G., Martin, G. T. O., and Maxwell, W. R.

Partridge, E. G., and Goodrich Co., B. F., artificial rubber dispersion, (P.), B.,

Partridge, E. P., and Fraas, F., recovery of potassium salts from minerals, (P.), В., 233.

See also Conley, J. E., Fraas, F., and Schroeder, W. C.

Partridge, H. E., method of, or apparatus for, dyeing, washing, or bleaching yarns or other material, (P.), B., 1204. and Oliver, W., washing or grading of coal or other granular material, (P.),

Partridge, J. H., resistant glasses for modern electric-discharge lamps, B., 275.

and Lait, J. R., manufacture of refractory articles from pure oxides of high

B., 1072.

m.p., B., 1153. Partridge, R. See Doelger, W. P. Partridge, S. M. See Coppock, J. B. M., and Kenyon, J.

Parts, A., influence of conductivity in determination of dipole moments, A.,

Pascal, E. C. D., action of alkaline extract of the anterior pituitary on growth of plants, and on germination, A., 909. Paschke, H., Vogt, C. C., and Armstrong

Cork Co., cork composition, (P.), B., 928.

Paschke, M., oxygen-enriched blast for blast furnaces, B., 741.

and Hauttmann, A., diffusion of carbon, silicon, and manganese in solid and liquid iron, A., 421.

and Peetz, E., heat losses in a Thomas converter during extended operation, B., 277.

Pascoe, T. A., Hella, R. P., and Stevens, J. W., new developments in bleaching

amine hydrochloride, A., 973.

and Halcon, L., α-aminoketones. IV. Ethyl aminobutyrylacetate and 2keto-n-amylamine hydrochlorides, A., 973.

Pask, J. A. See Wilson, Hewitt. Pask, J. D. See Rowe, F. M.Pasmanik, M. Sec Kolpakov, I. Pasquier, M. A. See Urbain, A.

Passauer, II., melting of glass by injecting combustible gases through the glass, B., 543.

Passedouet, H. See Carré, P.

Passerini, L., and Miehelotti, L., analytical reactions for detecting salts of cerium and other elements with methyleneblue, A., 43.

Passerini, M., and Albani, F., reactions between indoles and Schiff's bases,

and Ridi, M., reaction between aminoantipyrine and phenylhydrazine, A., 213.

Passinski, A., velocity of propagation of ultrasonic waves in colloidal solutions, A., 1190.

and Solotareva, S., isoionic point of proteins, A., 1462.

Passowicz, K., behaviour of the water-flea, Daphnia pulex, de Geer, in media of different p_{II}, A., 371.

Pasternack, R., Burnham, R. W., and

Pfizer & Co., C., processing of cheese, (P.), B., 762.

Pasternak, L., and Page, I. H., phosphatide metabolism and influence of thyreoidin, A., 369.

Pastinszky, S. von. See Ottensteln, B. Pastonesi, G., Fauser process for production of ammonium nitrate, B., 1205.

Pastor, M. F. See Imaz, I.
Pastorino, S. L. See Barco, P.
Pastureau, P., and Veiler, (Mlle.) M., boric acid derivatives of tetrasubstituted glycerol, A., 1092.

Pásztor, I. See Trambics, J.

Patai, E., and Tomasehek, Z., preparation and investigation of oxide cathodes of colloid structure, A., 566, 678.

Patania, A., dependence of infiltration of anæsthetics on their chemical nature or on composition of biological substrate, A., 1293.

Patankar, V. S. See Tawde, N. R.

Patat, F., photochemical and thermal decomposition of azomethane, A., 37. Occurrence of radicals in thermal decomposition of molecules and the reaction Mc+H₂, A., 293. Homogeneous unimolecular decomposition reactions of gases. I. and II., A., 293, 684. Magnitude of radical concentration in homogeneous thermal decomposition of organic molecules. I. Calculation of radical concentrations found by the para-hydrogen method, and the reaction CH₃+H₂. II. Radical concentration in decomposition of dimethyl other and propane, A., 802.

and Bartholome, E., direct transmission of vibrational energy from one gas molecule to another on collision, A., 781.

and Sachsse, H., appearance of radicals in thermal decomposition of organic molecules, A., 433. Thermal decomposition of formaldehyde and formic acid, A., 801.

See also Eucken, A., and Küchler, L. Patch, E. M., dietary production and prevention of anemia in larval amblystoma, A., 1014.

Patek, A. J., jun., chlorophyll and regeneration of blood; administration of chlorophyll derivatives in chronic hypochromic anemia, A., 504.

and Taylor, F. H. L., blood in hæmophilia, A., 1531.

Patek, J. M., froth-flotation process for oxide [tin] ores, (P.), B., 646.

Patel, A. M., absorption of substantive dyes, B., 367. See also Desai, P. G.

Patel, C. C., Desai, K. V., and Mehta, S. M., surface tension, A., 815.

Patel, C. V. See Rowe, F. M. Patel, J. S., and Nayar, A. P. B., natural and induced resistance to shoot-rot

in the coconut, B., 1012. and Seshadri, G. R., oil formation in groundnuts, B., 892.

Patelski, R. A. Sco Blicke, F. F.

Patent Gear & Metal Hardening Co., Ltd. See Shorter, A. E.

Patent & Licensing Corporation. See Douthett, O. R., Kirschbraun, L., Levin, H. L., Limburg, H., and Roediger,

Patent-Treuhand-Gesellschaft für elektrisehe Glühlampen m.b.H., airtight envelopes comprising ceramic materials, (P.), B., 193. Electric-discharge lamps, (P.), B., 283, 507. Electric cathode glow-discharge lamps, (P.), B., 418. Electric-discharge devices, (P.), B., 507. Thermionic electrodes, (P.), B., 507, 1214. Electric-resistance bodies of semi-conducting materials, (P.), B., 606. Luminous electric-discharge devices, (P.), B., 606. [Gas-filled] electric-discharge devices, (P.), B., 648, 798. Electrical resistors [shunts], (P.), B., 1052. Materials for electricdischarge lamps adapted to be excited to luminescence by the electric discharge, (P.), B., 1052.

See also Meyer, Wilfried.

Patentaktiebolaget Gröndal-Ramen. Haglund, G.

Paternosto, P. G., precipitation of mercuric iodide, A., 1217.

Paterson, A., soap [filaments], (P.), B., 607.

Paterson, G. D. See King, F. E.

Paterson, H. A., groundwood quality expressed by freeness and bursting strength, B., 364.

Paterson, J. H., mechanism of chemical reactions in weld metal, B., 889.

See also Murex Welding Processes, and Roberts, A. T.

Paterson, W., [apparatus for] water purification, (P.), B., 718.

Patin, A. K. F., and Széll, L. G. von,

application of coatings of alkali or alkaline-earth metals [to photo-cell clectrodes], (P.), B., 939.

Patmore, L. G. Scc Ornstein, S.

Patnoe, W. W., and Non-Metallic Minerals, Inc., classifier, (P.), B., 528.

Paton, R. F., proton emission resulting from a-ray bombardment of boron and phosphorus, A., 1045.

Patrassi, G., and Teodori, U., stability of corpuscular glucose subjected to washing with physiological solution, A., 354. Absorption curve of glucose by red corpuscles of normal and diabetic subjects in vitro, A., 365.

Patrick, J. C., formation of high polymerides by condensation between metal polysulphides and dihalogenated hydrocarbons and ethers, A., 312. Plastic materials, (P.), B., 206. [Insulated] electrical conductor [copper wire], (P.), B., 333. Plastic, elastic, flexible substances, (P.), B., 464.

and Mnookin, N. M., preparation of plastic substances [from olefines and polysulphides], (P.), B., 463.

Patrick, W. A., and Hackerman, N., mol.-wt. changes of sulphur monochloride, A., 786.

See also Hamm, H. A.

Patrick, W. L., fused magnesia in the non-ferrous industry, B., 408.

and Peel, G. N., application of fused silica in heating processes. I. Furnaces and heated enclosures, B., 719.

Patry, M., ortho- and meta-tellurates of benzidine, A., 463. Sexavalent tellurium derivatives. I. Telluric acids, A., 810. Potassium tellurates; analogy with the sulphates and selenates, A., 947. Polymetatelluric acid esters, A., 1097.

Patterson, C. L. See Warncke, L. Patterson, G. D. See Heckert, W. W. Patterson, H. S., and Cawood, W., determin-

ation of size distribution in smokes. A., 1198.

See also Whytlaw-Gray, R.
Patterson, J. B. E. See Barrie, M. M. O.
Patterson, J. W. See Digby, W. P.

Patterson, T. S., Van Helmont's ice and water experiments, A., 1356. and Holmes, (Miss) G. M., influence of

solvents and of other factors on the rotation of optically active compounds. XXXIII. Behaviour of β-octyl alcohol and of β -octyl acetate, A., 1184.

Patterson, W. I. See Du Vigneaud, V. Patterson, W. S., and Metcalfe, W. J., decomposition of calcium sulphate during laboratory carbonisation of Durham coking coal, B., 724.

Patton, A. R., and Palmer, L. S., amino-acid contents of eggs and chicks; relation to diet and to incidence of

chondrodystrophy, A., 1544. Patton, J. R. See Ferguson, J. B. Patton, L. T., natural glasses of the in-

soluble residues of Pennsylvanian limestones of Texas, A., 448.

Patty, F. A. See Yant, W. P. Paul, C. E. See Carbon Dioxide Co. Paul, D. A. See Howell, F. M.

Paul, F. W., absorption spectra of cerium, neodymium, and samarium, A., 262. Paul, Harry. See Hilditch, T. P.

Paul, Henry. See McCay, C. M.

Paul, H. H., striation of the positive column in glow discharge of hydrogen, A., 1.

Paul, R., oxidation-reduction during dehydration of furyl alcohols, A., 208. Synthesis of carlina oxide, A., 611. Hydrol character of furylphenylcarbinol, A., 996.

Paul, W. Sco Dietzel, R. Paul, W. D. Sce Clark, B. B. Paul, W. H. Sce Gleeson, G. W.

Pauli, W., and Alpern, M., highly purified

negative reversed sols., A., 1200.

and Lang, F., relation between electro-chemical constitution and colloid structure of pure dyes sols, A., 678.

and Rose, M. E., polarisation effects in the positron theory, A., 543.

Pauling, L., structure and entropy of ice and of other crystals, A., 275. Interpretation of infra-red absorption of compounds hydroxyl and imino-groups, A., 718.

and Brockway, L. O., radial distribution method of interpretation of electron diffraction photographs of gas molecules, A., 272.

Brockway, L. O., and Beach, J. Y., dependence of interatomic distance on single linking-double linking resonance, A., 272.

Pauling, L., and Carpenter, D. C., crystal structure of metaldehyde, A., 1054.

and Coryell, C. D., magnetic properties and structure of the hamochromogens and related substances, A., 616. Magnetic properties and structure of homoglobin, oxyhomoglobin, and carboxyhæmoglobin, A., 867.

and Eastman, E. D., quantum mechanics and the third law of thermodynamics,

See also Brockway, L. O., Mirsky, A. E., and Wheland, G. W.

Pauls, E., brewing of beer, (P.), B., 1228.

Paulsen, F. See Kylin, E. Paulson, P. A., reclaiming by-products [of sulphite wood pulp], (P.), B., 1088. Paulus, M. G. Sco Standard Oil Co.

Paulus, R. See Stackelberg, M. von. Paulus, W. See Fischer, R.

Pauthenier, M., and Volkringer, H., electrical method for killing bacteria in gaseous suspension, A., 524.

Pauw, E. A., carbon suboxide and its reactions with amines, A., 711.

Pavarino, G. L. See Scurti, F.

Pavez, I. S. See Schmidt-Hebbel, H. Pavinski, P., Heisenberg's oscillator model and nuclear moments, A., 660.

Pavlas, P., increase in the purity quotient of clarified [beet-sugar] juice on evaporation; accuracy of methods of polarisation and density determination, B.,

Pavlek, F. See Haase, C.

Paylenko, A. V. See Prokopetz, E. I.

Paylinova, R. M., biological growths in the Balachninsk paper mill, B., 925. Combating formation of fungal growths by chlorinating recirculation waters, B., 925.

Pavlov, E. F., absorbed manganese [in soils], B., 34. Solonising soil masses by capillary rise of field solutions, B., 34. Pavlov, K., and Pivovarova, A., new form

of thermodynamic diagrams, A., 20. Pavlov, K. F., apparatus used for ammonia synthesis, criticised from a technological point of view, B., 738.

and Gruzov, N. N., compression of oxygen in nitrogen-fixation factories, B., 931.

Pavlov, P. \bar{N} ., absolute zero, and sub-zero region of temperatures and reactions, A., 149. Specific volume and gravity

of solutions, A., 1192.
Engelschtein, M. A., and Volska, R., cohesive strength of agar-agar gels, in relation, to conditions of extraction, B., 429.

and Volska, R., change in properties of agar-agar under the influence of freezing, B., 429.

Pavlov, S. Sco Kroenig, W.
 Pavlov, V. P., continuous production of magnesium from carnallite, B., 24.

and Ivanova, V. E., production of magnesium by electrolysis of its oxide in a solution of fluorides, B., 746.

Pavlova, L. N. Seo Bachromeev, I. R. Pavlova, P. I. See Smorodincev, I. A.

Pavlova, V. A. Sce Vilenski, B. A. Pawlek, F. Sco Dahl, Otto, and Gen. Electric Co.

Pawlik, R., comparative trials of superphosphate and basic slag on meadow land, B., 1115.

Pawlikowsky, R., preparation of pulverulent fuel and operation of an internalcombustion engine therewith, (P.), B., 1138.

Paxton, E. W., Schmid, A. W., and Amco, Inc., continuous glass-melting tank, (P.), B., 694.

Paxton, H. C. See Kurie, F. N. D.

Payer, T. See Mezger, R.
Payman, W., and Titman, H., explosion
waves and shook waves. III. Initiation of detonation in mixtures of ethylene and oxygen and of carbon monoxide and oxygen, A., 294. Limits of inflammability of hydrogen and deuterium in oxygen and in air, A., 431.

and Wheeler, R. V., flame speeds during inflammation of moist carbon monoxide-oxygen mixtures, A., 163.

Payne, C. J. See Anderson, B. W. Payne, C. R., Stevens, D. R., and Gulf Refining Co., refining of gasoline produced by cracking, (P.), B., 486.

Payne, D. E. See Standard Oil Co.

Payne, E.H., and Miller, C.C., modification of the suspended-level viscosimeter, A., 1085.

See also Standard Oil Co.

Payne, F.J. See Internat. Latex Processes. Payne, H. R. See Robinson, C. S.

Payne, M., and Brit. Thermostat Co., apparatus for humidifying air and for similar purposes, (P.), B., 579.

Payne, R. B. See Nat. Aniline & Chem. Co.

Payne, R. J. M., semi-automatic potentiometer for thermal analysis, A., 45. Automatic potentiometer for thermal

analysis, A., 815. Payne-Scott, R., use of photographic films as a means of measuring y-ray

dosage, A., 1216. and Love, W. H., tissue cultures exposed to a magnetic field, A., 514.

Payson, P., and Crucible Steel Co. of America, alloy steel, (P.), B., 937.

Payton, N. F. See Barnes, R. P. Pázler, J., and Růžička, A., harmful nitrogen determination [in sugar beet], B., 423. Specific conductivity of beet diffusion juice, B., 1172.

Peabody Engineering Corporation. See Harmon, R. R.

Peace, A. E. See Ley's Malleable Castings Co.

Peacock, D. H., polyamines. II. Preparation of $\beta\beta'$ -diaminodicthylamine and NN'- bis-(β - aminodiethyl)ethylenediamine, A., 1493.

See also Menon, E. V., and Singh, A. Peacock, M. A., wollastonite and parawollastonite, A., 48. Crystal form of sternbergite, A., 817.

and Yatsevitch, G. M., cubanite from [the Frood Mine], Sudbury, Ontario, A., 585.

See also Dunham, K. C.

Peacock, P. R. Sce Chalmers, J. G. Peacock, R. B. See Imperial Chem. Industries.

Peacock, S. C., and Hinman, W. F., plasma-protein determinations in lactating women, A., 501.

Peacock, W., jun., and Peacock Labs., Inc., a galena blue mirror [on glass], (P.), B.,

Peacock, W. M. See Wright, R. C. Peacock Laboratories, Inc. See Peacock, W., jun.

Peak, D. A., and Robinson, Robert, synthesis of substances related to the sterols. XII. Some hydrochrysene derivatives, A., 989.

Peak, D. A., Robinson, Robert, and Walker J., synthesis of substances related to the sterols. X. Condensation of furfurylidenetetralone with ethyl acetoacetate, and analogous studies, A., 989.

See also Briggs, L. H., and Robinson, Robert A.

Peake, T. J. See Sutton, H.

Peale, R., jun., and Peale-Davis Co., separation of intermixed divided divided materials, (P.), B., 256, 432.

Peale-Davis Co. See Davis, K., and Peale, R., jun.

Peano, E., and Pissaro, I., halogenised eggs. I. Iodised eggs, B., 41.

Pearce, A. F., variation of mobility of gaseous ions with temperature. II. Cæsium and sodium ions in helium, A., 1171.

Pearce, A. G. See Gen. Electric Co. Pearce, D. W., and Selwood, P. W., anomalous valencies of the rare earths, A., 952.

Pearce, G. W., Lisse, M. W., and Tittsler, R. P., effect of electrolytes added to growth medium on electrophoretic potential of Esch. coli, A., 898.

and Norton, L. B., phase-rule study of the calcium arsenates, A., 1070.

Norton, L. B., and Chapman, P. J., chemical method for determining safeness to foliage of commercial calcium arsenates, B., 341.

Pearce, J. G., modern cast irons in chemical

plant equipment, B., 887.

Pearce, J. M., age and tissue respiration, A., 1408.

Pearce, J. N., vapour pressures and activity coefficients of aqueous solutions of calcium and aluminium nitrate at 25°, A., 428.

and Berhenke, L. F., dipole moments of certain organic compounds, A., 12.

and McDowell, M. L., activity coefficients of lithium chloride and potassium iodide in ethyl alcohol by the b.p. method, A., 1204.

and Newsome, J. W., thermal decomposition of hexane at high pressures, A., 51.

and Tanner, W. B., heat capacity and free energy of formation of naphthalene, A., 31.

and Thomas, M., effect of salts on velocity of inversion of sucrose at 25°, A., 35.

Pearce, P. H., and Roberson, E. C., spiral bubbler, A., 956.

Pearce, S. J., Schrenk, H. H., and Yant, W. P., micro-colorimetric determination of benzene in blood and urine, A., 1308.

See also Schrenk, H. H.

Pearce, W. T. Sco Klein, L.

Pearl, W. A., and Brown, G. G., gaseous explosions; critical initial temperature for maximum rate of pressure rise, A., 1208.

Pears, H. W. K., decorating articles formed of moulded plastic material, (P.), B., 464.

Pearsall, W. H., and Billimoria, M. C., nitrogen losses in green plants, A., 1569.

See also Howarth, J. P.

Pearse, H. L., effect of phenylacetic acid on the growth of tomato plants, A., 1434.

Pearse, R. W. B., and Ishaque, M., spin coupling in the ³Σ-state of phosphorus deuteride, A., 544.

See also Hunter, A., Ishaque, M., and Lunt, R. W.

Pearson, A. R., and Norris, R. E., liquidoperated thermostat, A., 696.

and Pleasance, B., colour temperatures of the Hefner and acetylene flames, A., 45.

Pearson, C. E., and Smythe, J. A., examination of a Roman chiscl from Chesterholm, B., 196.
Pearson, J. L. See Bosanquet, C. H.,

and Imperial Chem. Industries.

Pearson, J. W., and Warren, E., furnaces

for burning coal, (P.), B., 967. Pearson, O. H., reaction of cyanide with the hæmocyanin of Limulus polyphemus, A., 1283.

See also Salter, W. T.

Pearson, P. B., and Catchpole, H. R., partition of calcium and inorganic phosphorus in equine serum, A., 497, 1401.

See also Catchpole, H. R.

Pearson, R. E., and Gilbert, W. V., chromic acid and sparingly soluble chromates, (P.), B., 273.

Pearson, T. F., skimming devices for glass tanks or furnaces, and the gathering of charges therefrom, (P.), B., 148.

Pearson, T. G., and Purcell, R. H., free

radicals and atoms in primary photochemical processes; free n-propyl radical, A., 451.

Pease, R. N., slow oxidation of propane, A., 33.

See also Echols, L. S., jun., Morris, J. C.,and Wheeler, A.

Peat, S. See Daly, I. de B.

Peccerillo, D. See Bakunin, (Signa.) M.

Peck, C. L. See Cunningham, N. Peck, E. B. See Standard-I. G. Co.

Peck, F. W. See Du Pont de Nemours & Co., E. I.

See Glockler, G. Peek, R. E.

Peck, S. M., substances for treatment of hæmorrhagic diathesis, (P.), B., 620.

Peckham, A. L. See Rusk, R. D. Peckolt, O. de L. See Costa, O. de A. Peczalski, T., broadening of the lines in the radiation from hissing ares, A.,

655. and Szulc, N., concentrations of sodium vapour in the electric arc, A., 438.

Pedden, J. R., Tainter, M. L., and Cameron, W. M., comparative actions of sympathomimetic compounds: bronchodilator actions in experimental bronchial spasm of parasympathetic origin, A.,

Pedersen, C. J., determination of gardinol and brilliant avirol, B., 12.

See also Du Pont de Nemours & Co., E. I.

Pedersen, K. J., aa-dimethylacetoacetic acid; hydrolysis of the ethyl ester; ketonic decomposition; reaction with iodine and bromine; dissociation constant, A., 432.

Pedersen, K. O., ultracentrifugal and electrophoretic studies on the milkproteins. I. Preliminary results with fractions from skim-milk. II. Lactoglobulin of Palmer, A., 880. Molecular state of proteins in mixtures and concentrated solutions, A., 1338.

See also Heidelberger, M.

Pedersen-Bjergaard, K. See Thomsen, O. Pederson, C. S., relation between temperature and rate of fermentation of commercial sauerkraut, B., 121. Effect of inoculation on quality, chemical composition, and bacterial flora of sauerkraut, B., 121. Preservation of grape juice. I. Pasteurisation of Concord grape juice. III. Cool storage of grape juice, B., 471,

Beavens, E. A., and Goresline, H. E., pasteurisation of New York State wines, B., 119. Preservation of grape juice. IV. Pasteurisation of juices or musts prepared from several varieties of grapes, B., 1231. and Kelly, C. D., accuracy of certain

methods used in analysis of sauerkraut, B., 856.

See also Tressler, D. K., and Yale, M, W,

Pedlow, J. T., and Reiner, L., mechanism of chemotherapeutic action. XII. Comparison of the binding of some chemotherapeutic agents by normal resistant trypanosomes, 639.

See also Reiner, L., Humphrey, J. W., and Schmidt, Erich.

Pedrero, M., relation between critical data and atomicity, A., 930.

Peebles, D. D., dried food products, (P.),

B., 394.

and Manning, P. D., concentration of liquid materials, (P.), B., 769.

and Western Condensing Co., dried stock feed, (P.), B., 905.

Peech, M., and Batjer, L. P., measuring oxidation-reduction potentials of soils with special reference to orchard soils, B., 34.

Peel, G. N. See Patrick, W. L. Peel, W. R. See Ling, A. W.

Peerless, Inc. See Markley, J. W.

Peerless White Lime Co. See Smith, R. W. Peet, G. D. See Baker, J. C. Peet, R. B. See Burke, W. E.

Peetz, E. See Paschke, M.

Pegon, A. See Morel, A. Pegram, G. B., and Dunning, J. R., electrolytic separation of polonium and radium-D, A., 1076.

See also Dunning, J. R., Fink, G. A., Mitchell, D. P., Rasetti, F., and Urey, H. C.

Peh, K. See Heller, K.

Pehrmann, G., action of Clerici's solution

on gypsum, A., 39. Pehrson, A. P. See Knibbs, N. V. S.

Pehrson, J. M., and Pehrson, R. V., treatment of fish, whale flesh, etc., (P.), B., 812. Pneumatic drying plant, (P.), B., 1072. Drying of loosely aggregated material, (P.), B., 1072. Pehrson, R. V. See Pehrson, J. M.

Peierls, R., superconductivity and other low-temperature phenomena, A., 147. Statistical basis of electron theory of metals, A., 404. Transition temperature, A., 417. Interpretation of Shankland's experiment, A., 774. Statistical theory of superlattices with unequal con-centrations of the components, A., 782. Ising's model of ferromagnetism, A., 1187. Magnetic transition curves of superconductors, A., 1189. Statistical

theory of adsorption with interaction between the adsorbed atoms, A., 1196. Peigné, L. See Carré, P.

Peintal Société Anonyme, decorative sheet material, (P.), B., 97. Electrolytic formation of oxidised films on aluminium and its alloys, (P.), B., 332. Production of surfaces printed with coloured designs on aluminium and its alloys, (P.), B., 376. Formation of oxidised films on aluminium and its alloys, (P.), B.,

Peirce, A. W., milk of the merine ewe, A., 1535.

Peirce, W. McL. See Improved Metallurgy Ltd.

Peissakovitsch, I., and Kostenko, P., pathomorphological changes in the internal organs and endocrine glands in dinitrophenol poisoning, A., 1553.

Peive, A. V., phosphatic limestone of the lower Eocene of the East Fergana (Middle

Asia), A., 818.

Pekkarinen, A., determination of the CO2 pressure of natural waters, A., 42. Determination of total carbonic acid in water, A., 1220. Pelagatti, U., and Ricci, G., preparation of

azo-pigments derived from nitro-anilines, B., 266.

Pelc, J. J., treatment of aliphatic and cyclic saturated hydrocarbons, (P.), B., 870.

Pelkis, P., synthesis of monohydric un-saturated alcohols with systems of

saturated alcohols with systems of double linkings, A., 1091.

Pell-Walpole, W. T. Sce Hanson, D.

Pellini, J., two-liquid [primary] cell, (P.), B., 418.

Pelloux, A., scheelite from the mines of Gerrei in Sardinia, A., 700.

Pels, H., a photographic amusement device, (P.), B., 1181.

Pelshenke, P., determination of gluten quality by the fermentation method, B.,

Pelton, E. L. See Dow Chem. Co.

Peltzer, A., Peltzer, A., jun., and Merco Centrifugal Separator Co., [centrifugal] treatment of material, (P.), B., 673.

Peltzer, A., jun. See Peltzer, A. Pelyi, J. See Aszódi, Z.

Pelzer, A., separator for float-and-sink analyses [of coal], B., 1025.

Pelzer, H. L., and Sinclair Refining Co., cracking of hydrocarbons, (P.), B., 9, 1190. Cracking of hydrocarbon oils, (P.), B., 262. Coking of hydrocarbons, (P.), B., 631.

Pember, F. R. See Gilbert, B. E.
Pemberton, G., dyeing of aniline-black on silk and half-silk hosiery, B., 1203.

Pen-Chlor, Inc. See Dietz, K.

Pénau, H., and Guilbert, J., determination of activity of lipase and esterase, A., 520.

See also Stainier, C., and Stolk, D. van. Pencharz, R. I. See Evans, H. M., and Fisher, R. E.

Pendergast, W. L. See Heindl, R. A. Pendray, G. E., [propellants for] rocketry, B., 430.

Penecke, W. See Zinke, A.

Penfold, A. R., and Morrison, F. R., Australian "tea trees" of economic value. II. [Leptospermum citratum], B., 429. Occurrence of linalool in the essential oil of Melaleuca ericifolia, B., Essential oils of Eucalyptus Australiana (Baker & Smith) and its physiological forms, B., 429.

Penndorf, R., ozone as a heating factor in the atmosphere, A., 1356.

Pennell, P. H., Draper, C. H., and Armstrong Cork Co., [non-penetrating] paint, (P.), B., 69.

See Koslovsky, M. T. Penner, A. J.

Penney, G. W. Sce Barnes, E. C. Penniman, W. B. D., oxidising petroleum and products thereof, (P.), B., 438. Treatment of [hydrocarbon] oils, (P.),

Penning, C. J. H., furnaces, (P.), B., 1184. Penning, F. M. See Kruithof, A. A. Pennington, H. R., and Indiana Steel &

Wire Co., coated ferrous welding wire or electrode, (P.), B., 156.

See also Judy, P. R.
Pennington, M. E., Thomas, A. W., and Borden Co., treatment of eggs, (P.), B., 394.

Pennington, R. W. See Burgess, Ledward & Co.

Pennington, W. D. See Jensen, H.

Pennock, A. G. L., and Lee, Sydney, galvanic battery, (P.), B., 417.

Pennrich, H. C., cracking of large-molecular hydrocarbons, (P.), B., 534.

Pennsylvania Coal Products Co. See Lofton, W. M., jun.

Pennsylvania Salt Manufacturing Co. See Davies, R. L., Gummert, J. S., Van der Cook, R. E., and Weitzel, C. F. Penruddocke, E. See Gerstley, J. R.

Pensotti, D. See Butturini, L.

Penston, N. L., physiological importance of mineral elements in plants. VIII. Variation in potassium content of potato leaves during the day, A., 648.
Péntcheff, N. P., neon content of natural

gases, A., 957.

Pentimalli, F., and Schmidt, G., phosphorus in blood-plasma of hens suffering from

sarcoma, A., 100.

Pentin, N. P. Sco Jakimov, P. A.

Pepsodent Co. Sce Kuever, R. A.

Perakis. See under Perrakis.

Perathoner, G. See Graf, R. Perazzo, A. A., De Prado, L., and Leporati, Y. E., analysis of national [Argentine] and foreign malts, B., 855.

Percival, E. G. V., and Sim, W. S., acetylation of agar, A., 1005.

See also Munro, J.

Perdok, W. G. See Klasens, H. A. Perdrizet, G., tungsten carbide tools, B., 794. Perdue Research Foundation. Sco Hass, H. B., and Kraybill, H. R.

Peregood, E. See Aliavdin, N.

Pereira, F. B., and Soares, M., action of salts on the aspartase system, A., 379. See also Jacobsohn, K. P.

Pereira-Forjaz, A., and Jacobsohn, K. P. action of heavy water on fumarase and phosphatase systems, A., 1025.

Perelman, T. See Lavrov, F. A.
Peresadin, V. See Ramm, S.
Peretti, E. A. See Seith, W., and Wilson, Curtis L.

Peretti, G., behaviour of calcium in electrodialysis of blood-serum and its dialysate, A., 358. Total fatty acids of the liver after administration of fats of varying degree of unsaturation, A., 1018. Absorption of oleic acid in the form of mono- and di-olein, A., 1018. Oxidation-reduction in the small intestine and liver of rats during intestinal absorption, A., 1408. Experimental polyavitaminosis, A., 1428.

and Porrazzo, F., intermediate metabolism of carbohydrates in avitaminosis-

B. I., A., 1429.

Peretti, G., and Reale, Loto, intestinal absorption of oils of varying degree of unsaturation, A., 1018. Total fatty acids of the liver after administration of oleic acid and mono- and di-olein, A., 1018.

Reale, Loto, and Cioglia, L., distribution of fats introduced into the organism, A., 1144.

See also Artom, C.

Perevesensev, I. See Motschan, I. Perey, (MUe.) M. See Rosenblum, S.

Perez, S., and Müller, Arthur, [rubber] plastic-elastic compositions, (P.), B., 111. Pérez-Vitoria, A., preparation of iodic acid, A., 947.

Perfection Steel Body Co. See Cohen, H. Perie, M. I., and Lobunetz, M. M., determination of silver by means of potassium ferricyanide, A., 1082.

Perjés, J. Sce Beznák, A. von.

Perkins, A. T. See Benne, E. J.

Perkins, G. A. See Carbide & Carbon Chemicals Corp.

Perkins, I. M., Hobart, F. B., and Atlantic Refining Co., treatment of oil-wax mixtures, (P.), B., 10.

Kurtz, S. S., jun., and Atlantic Refining Co., separation of oil-wax mixtures, (P.), B., 10.

Perkins, M. A. See Du Pont de Nemours & Co., E. I.

Perkins, M. E. See Hellerman, L. Perkins, R. P. See Dow Chem. Co.

Perkins Glue Co. See Pierson, G. G., and Harvey, $E.\ H.$

Perl, J., distillation [of petroleum], (P.), B., 262.

Perla, D., infection with Trypanosoma equiperdum, A., 382.

See also Sandberg, M. Perla, J. See Zunz, E.

Perlberger, J. See Reichert, I.

Perlitz, H., laws of valency electron concentration in binary intermetallic alloys, A., 420.

Perlmann, V., quality in materials and papers, B., 539.

Permar, H. H. See Maclachlan, W. W. G. Permatex Co., Inc. See Fuchs, H. C.

Pernot, (Mlle.) M., system mercuric iodide-

cæsium iodide-water, A., 429.

Perov, S. S., "proto-acid" of fibrin, A., 1037. "proto-acid" of ovalbumin, A., 1037. Structure of protein phases in plant substrata, A., 1038. Cascin ("cascinic acid"), A., 1038. Anti-complex of fibrin, A., 1136. Mechanism of coagulation of proteins by tannic acid, A., I138.

Djatschenko, P., and Schelpakova, K., "proto-acid" of soya bean, A., 1037.
Djatschenko, P., and Sovetinova, K., "proto-acid" of lupin, A., 1037.

and Dolinov, K., changes in the physicochemical constants of hen-egg plasma on incubation, A., 1143.

and Lissitzin, M. A., vegetable "proto-

acid," A. 1038.
Perrakis, N., and Capatos, L., magnetochemistry of rhenium: metallic rhenium and septavalent rhenium, A., 278.

See also Capatos, L. Perrault, M. See Loeper, M. Perreau, P. See Loeper, M.

Perret, A., and Biechler, J., chloroformates, A., 1229. and Perrot, R., carbonyl chloride, A.

301. Magnesium cyanamide, A., 689.

Perret, J. M. See Arloing, F.

Perria, L., glycine treatment of progressive myopathic muscular atrophy and creatine balance, A., 752.

Perrier, A., and Meylan, L., hypothesis of spontaneous magneto-galvanic and thermo-electric forces, A., 928.

Perrin, M. W. See Imperial Chem. Industries, and Williams, E. G.

Perring, J. W. See Ollard, E. A.

Perroncito, G., oxidation of 1-phenyl-3-methyl-5-pyrazolone. I. and II., A., 614, 1522.

See also Crippa, G. B.
Perrot, E., "lofout," a Saharan lily containing colchicine, A., 912.

Perrot, L. See Courmont, P., and Morel, A. Perrot, R., chlorination and nitration by nitrosyl chloride, A., 714. Nitrosochlorides of the benzenc series, A., 1100. See also Perret, A.

Perrottet, E., and Susz, B., Raman spectra of cis- and trans-isoeugenol, A., 1319.

Sec also Briner, E., and Susz, B. Perry, A. L. H. Sco Imperial Chem. Industries.

Perry, E., coating photographs [and labels] with protective transparent

finishes, B., 510. Perry, H., and Grotefeld, A. W., tempering of glass, (P.), B., 933. Decorated glass,

(P.), B., 990. Perry, J. A., Hall, E. L., and United Gas

Improvement Co., two-shell water-gas set, (P.), B., 437. Low-gravity carburetted water-gas, (P.), B., 437.

Perry, J. H., and Herrmann, C. V., Joule-Thomson effect of methane, nitrogen, and their mixtures, A., 150.

Perry, R. G. See Brit. Celanese.

Perry, S. Z., and Hibbert, H., carbohydrates and polysaccharides. XLVIII. Ethylene oxide and related compounds: synthesis

of polyethylene glycols, A., 963.

Perryman, P. W., and Selons, C. F., physiological and physical aspects of surface tension of urine, A., 502.

Perschke, V., and Ignatieva, V., influence of external factors on lead corrosion in sulphuric acid production, B., 58. Perschmann, G. See Schriever, H.

Pershing, C. O., oils in spray combinations with lead arsenate, cryolite, and barium fluosilicate, B., 1117. See also Smith, R. H.

Person, H. A., steam generation by electricity, B., 1103.
Persova, E. See Palladin, A. V.

Persoz, L., chromium-copper steels, B., 547. Corrosion fatigue, B., 549.

Perstney, N. See Tiutiunnikov, B. Pertierra, J. M., hydrogenation of a colloidal solution of coal, B., 5. Colloidal solutions of coal, B., 770. Colloidal solution of coal and its hydrogenation, B., 1137. Hydrogenation of vegetable and animal oils at high pressures, B., 1165.

"Pertrix" Chemische Fabrik Akt.-Ges.,

galvanic cell, (P.), B., 647. Pertzov, V. N., and Karapetjantz, M. C.,

mechanism of combustion of graphite at different temperatures. II., A., 1211. Perutz, A., Lustig, B., and Klein, A. E.,

central regulation of fat metabolism in the epidermis, A., 370.

Peruzzi, P., respiration in vitro of tissues in relation to growth-curve of the organism, A., 368.

See also Domini, G.

Pesce, B., purification of mercury, A., 439. Dependence on temperature of the apparent molecular volume of dissolved electrolytes. I., A., 678. Purification of acetone, B., 359.

Pesehke, W. See Kindler, K. Pesez, M., bromido-resorcinol reaction; reactions characteristic of phenols, opium alkaloids, and oxalic acid, A., 745. New reaction of opium alkaloids and its application to detection of certain oxidising agents, A., 745. Resorcinol reaction of oxalic acid, A., 1488.

Peski, A. J. van. See Shell Development Corp.

Peskin, J. I., tanning sheepskins with the application of iron salts, B., 948. and Semenova, V. N., treating sheepskins

with iron and chromium salts, B.,

Peskov, N., and Averbuch, S., structure viscosity of lyophilic sols. I. Gelatin sol, A., 28.

Pessin, S. B. Sec Stovall, W. D.

Pestalozza, P., cells for alkali chloride electrolysis, (P.), B., 65.

Pestalozzi, S., effect of loading on fastness to light of coloured papers, B., 186. Testing dyes, B., 781.

Pestemer, M., Langer, T., and Manchen, F., influence of substituents on the ultraviolet absorption spectra of simple and double-linking conjugated benzene chromophores, A., 1318.

and Manchen, F., ultra-violet absorption of some aromatic hydrocarbons. IV. Constitution of hexahydropyrene, A.,

1048.

Péter, F., action on gaseous metabolism of poisons for the vegetative nervous system, A., 108.

Peter, Fritz, and Le Gal, G., influence of the working conditions in tinning [iron] on the porosity of tinplate, B., 324.

Peter, O., yield of the characteristic X-rays of aluminium (Al K lines) excited by protons, A., 1438. See also Thiel, A.

Peterkin, A. G., jun., and Atlantic Refining oil-cracking system, (P.), B., 1190.

Peterlin, A., orientation of molecules of liquids from the X-ray scattering pattern, A., 273.

Peters, A. T. Sec Rowe, F. M.

Peters, C. A., determination of calcium sulphate, as such, in clays, B., 234. See also MacMasters, M.J.

Peters, E. See Borger, G. Peters, F. J., highly heat-resistant antirusting finishes, B., 160. Aluminiumbronze paints, B., 204. Peters, F. N., jun., furans, B., 869.

Peters, F. P., rapid determination of nickel in 18-8 and other high-chromium steels and alloys, B., 64.

Peters, G., the HCN "aspirometer" for measuring hydrocyanic acid concentration during tree fumigation, B., 423.

Peters, H. C., Rea, C. E., and Grossman, J. W., influence of ethyl alcohol on energy metabolism of the mammalian heart, A.,

Peters, J. P. See Man, E. B.

Peters, K., and Winzer, K., production of light benzine from kogasin II by cracking, B., 966. Polymerisation of ethylene under pressure, B., 1139. See also Fischer, F.

Peters, O. See Hilpert, R. S.

Peters, R. A., biochemical lesion in vitamin- B_1 deficiency; application of modern biochemical analysis in its diagnosis, A., 904. Effect of dichlorodicthylsulphone on brain respiration, A., 1414. Vitamin-B₁ (oryzanin, torulin, aneurin), A., 1566.

See also Kinnersley, H. W., McGowan, G. K., and Ogston, A. G.

Peters, W. H., synthesis of resins from glycerol and phthalic acid, (P.), B., 704. Petersen, H., theory of X-ray absorption

by molecular gases. III., A., 399. See also Prins, J.A.

Petersen, M., and Carl, H., spectra of helium by high-frequency excitation, A., 1309.

Petersen, W. See Eschenbach, J. Petersen, W. E., factors influencing the lactose content of milk, A., 1405. Milk-proteins, B., 1065. See also Brown, W. R. Peterson, A. A. See Boegehold, A. L.

Peterson, C. F., manufacture and treatment

of gas coke, B., 530.

Peterson, E. See Bell Telephone Labs.

Peterson, E. G. See Hercules Powder Co. Peterson, F. C. See Barber, F. G., and Barry, A.J.

Peterson, M. D. See Webb, D. H. Peterson, M. D. See Libby, W. F.

Peterson, P. See Möller, G.
Peterson, P. D., safe use of sulphur as a fungicide, B., 516.

Peterson, R. G. See Osgood, G. H.

Peterson, R. L. See Coleman, G. H. Peterson, W. H. See Gorcica, H. J., Johnson, M. J., Quackenbush, F. W., Tatum, E. L., Thompson, W. S., Wenck, P. R.,

and Woolley, D. W. Petherbridge, F. R., and Thomas, I., control of plum sawfly (with a note on thrips damage), B., 341. Control of fleabeetles in seed beds, B., 341.

Petin, N. N. See Golombik, M. S., and Nesterova, V. I.

Petit, A., transmission and treatment of cereal rusts in Tunis, B., 116.

Petit, D., use of French refractories in metallurgy, B., 102.

Petit, P., yeast and fermentation, B., 213. Correction of brewing water with acids,

B., 389. Drying of hops, B., 389. Petitjean, C. See Ruggli, P. Petitpas, (MUe.) T. See Desmaroux, J.,

and Mathieu, M.
Petkovitch, S. See Stanoyévitch, L.
Petraseheck, W. E. See Hoehne, K.

Petraschenj, V. J., analysis of cations of

third and second [fourth] groups in presence of phosphate ion, A., 1352. Systematic analytical procedure without use of hydrogen sulphide, A., 1480. Petrashen, (Miss) M. See Fock, V. Petrenko, G. I., and Tscherkaschin, E. E.,

dependence of hardness of Ag-Zn alloys on their composition, A., 932. tials of silver-zinc alloys, A., 1206.

Petrenko, S. N., Ramberg, W., and Wilson, B., determination of the Brinell number of metals, B., 1100.

Petriaev, I., effect of temperature of drying nickel formate on its activity [in hydrogenation of oils], B., 942.

Petrick, A. J., formation of nitric acid during the combustion of organic nitrogen compounds in the calorimetrie bomb, A., 1397.

Petrie, A. H. K., nutrient supply and water requirements in cereals and pasture plants, A., 1163.

Petrie, P. S. See Dow Chem. Co. Petrjanov, I. See Fuchs, N.

Petroff, S. A., and Gump, W. S., bacterio-static and bactericidal studies of dyes and allied compounds, A., 385.

Petroleum Conversion Corporation. See Colony, M. W., and Sachs, A. P.

Petroleum Iron Works Co. of Texas. Pittman, E. W.

Petroleum Processes Co., "uni-coil in-jection" process [for oils], B., 866. Petroleum Processes Corporation. Sco

Tears, C. F. Petroleum Rectifying Co. of California. See Eddy, H. C., and Worthington, J. T. Petrov, A. A. See Lichoscherstov, M. V.

Petrov, A. D., synthesis of hydrocarbons of the aliphatic series, A., 818. Synthetic lubricating oils, B., 52.

Karasev, K. I., and Tschelzova, M. A., action of magnesium tert.-butyl chloride on methyl propyl ketone and ethyl laurate, A., 457.

Petrov, A. V. See Charmandarian, M. O. Petrov, B. A., and Ormont, B. F., preparation of potassium from potassium ferrocyanide and cyanide, B., 326. Sec also Ormont, B. F.

Petrov, G. S. Sce Losev, I. P. Petrov, G. V., recovery of elementary sulphur from dissociator gas, B., 965.

Petrov, I. See Jakubovitsch, A. J. Petrov, K. See Zeide, O.

Petrov, P. N., and Borozdina, M. S., electrodeposition of coloured films on metals, B., 600. Petrov, V. A., enolisation of oxycholesteril-

ene, A., 1505. See also **Dorée**, C.

Petrova, A., photodissociation of gallium halides, A., 1446.

Petrova, I. N. Sec Botscharova, E. M., Dobrianski, A. F., and Gadaskina, N. D.

Petrova, O. D. See Merlis, M. N. Petrovich, A. See Klooster, H. S. van.

Petrů, F. Sce Raudnitz, H. Petrucci, S. Sec D'Alessandro, G.

Petrunkevitch, A., and Piekford, G. E., relative acidity of histological fixing fluids, A., 1436.

Petrunkin, M. See Petrunkina, A. Petrunkina, A., and Petrunkin, M., relation

between acids and bases in the human brain cortex, A., 878.

Pett, L. B., changes in the ascorbic acid and glutathione contents of stored and sprouting potatoes, A., 1033. Yeast grown in cyanide. II., A., 1153. Pette, J. W. See Beynum, J. van.

Pettersson, H., ultra-violet spectrum of radium emanation, A., 128. Transparency of sea-water, A., 184.

Sec also Karlik, B.
Pettey, F. W., removal of spray residue from

pears and apples, B., 247. Pettingill, C., and Barlow, E. J., continuous

oxygen recorder, (P.), B., 988. Pettit, O. W., oil rectifier and reclaimer, (P.), B., 682.

Pettitt, L. W. See Elliott Bros. (London). Petty, B. K. See Ripley, L. B.

Petty, E., and Alco Products, Inc., fractional crystallisation of waxes, (P.), B., 359. Dewaxing of hydrocarbon oils, (P.), B.,

Petty, G. M., names of and symbols for the artificially radioactive elements, A., 1314. Petuhov, V., Sinelnikov, K. D., and Walther, A., disintegration of lithium by lithium ions, A., 6.

Petzetakis, A., rapid determination of quinine in dragées, tablets, and ampoules and of quinine salts, B., 76.

Petzold, F. See Heinrich, F.
Pevere, E. F. See Texas Co.
Pevsner, L. See Akimov, G. V.
Pevtzov, G. A., essential oil from Crithmum maritimum, L., B., 171.

Pew, A. E., jun., and Sun Oil Co., preparing stock for distillation of lubricating oil, (P.), B., 359. Gracking of hydrocarbon oils, (P.), B., 682.
Pew, J. C. See Pillow, M. Y., and Schafer,

E. R.

Peychès, I., Raman spectra of hydroxy acids and their esters and salts, A., 137. Peycru, L., atomisation of liquids, (P.), B., 3. Peynaud, E., determination of tartaric acid in musts and wines by the racemate method, B., 808.

See also Ribéreau-Gayon, J. Peyronel, G. See Levi, G. R.

Peyrot, P. See Canals, E. Pezy, J. A. See Waterman, H. I.

Pfänder, A., oil extraction by the diffusion [solvent] process, B., 1003.

Pfaff, K., p_H of cosmetic products, B., 573. Pfaffenberger, J. Seo Dahl, Otto, and Gen. Electric Co.

Pfankuch, E., phosphatase of potato and sugar-beet, A., 1153.

See also Houben, J.

Pfanner, H., substitutes for boiled linseed oil, B., 700.

Pfannmuller, J. See Wallerstein, L. Pfannstiel, K. See Gleu, K.

Pfanstiehl Chemical Co., welding metallic tips [hard alloys] to metallic bases [gold

pen nibs], (P.), B., 1212. Pfarre, E. See Gericke, S. Pfau, A. S., relation between odour and constitution of alkoxycoumarins; new

product with a celery odour, A., 858. and Plattner, P., volatile plant products. IV. Constitution of the azulenes, A., 993.

Pfeiffer, $C.\ A.$ See Witschi, E. Pfeiffer, G. [with Clarenz, L.], determination of digestibility of crude protein in feeding-stuffs, B., 714.

Möbius, W., and Pohl, K., blood-iodine level, A., 1009.

Pfeiffer, G. H., and Speicher, J. K., modern styles in nitrocellulose, B., 688.

Pfeiffer, J. P., and Doormaal, P. M. van, rheological properties of asphaltic bitumens, B., 774. Rheological properties of asphalt bitumens and working hypotheses on the inner structure of these products, B., 865.

See also Wolzogen Kühr, C. A. H. von. Pfeiffer, P., and Heinrich, E., preparation and activation of homoaspartic acid, A., 1236.

and Pfltzner, H., polyatomic co-ordinate valency rings with mela- and paracondensation, A., 1253.

Pfeiffer, T., and Schneider, P. [with Kobs, H.], quinoid oxidation products in the brazilin series, A., 78.

Pfeil, E., measurements [on soils] with the glass electrode, B., 340.

Pfeilsticker, K., significance of spectrum

analysis for waterworks, B., 1022. Pfiffner, J. J., Wintersteiner, O., and Vars, H. M., adrenal cortex. I. Fractionation of hormone concentrates,

See also Swingle, W. W., and Wintersteiner, O.

Pfirmann, T. W., hydrogenation of carbonaccous materials, (P.), B., 868. Pfister, A., physical and chemical constants

of some Chilean fish oils, B., 1054. Pfister Chemical Co., Inc. See Lundstedt, E.

Pfitzner, H. See Pfeiffer, P.

Pfizer & Co., C. See Pasternack, R.

Pflaum, W. See Justi, E. Pfluger, R. See Brass, K.

Pfretzschner, H. See Brecht, W.

Pfützer, G., and Losch, H., improvement of German tobaccos, B., 1128.

Pfund, A. H., general source of radiation for the visible and infra-red spectrum, A., 305.

and Greenfield, E. W., surface-tension measurements of viscous liquids, A.,

Phalnikar, N. L., and Nargund, K. S., synthesis of a-substituted glutaconic acids, A., 848.

Nargund, K. S., and Kanga, D. D., seeds of Hygrophyla spinosa, A., 651. Pharma-Chemical Corporation. See Markush, E. A.

Pharoh, H. W., iron and acid troubles [in water treatment], B., 398.

Phatak, N. M., and Leake, C. D., anti-septic action of 2-furyl mercurials, A., 64l.

Phelan, R. E., history of Flin Flon mine up to construction, B., 200.

Phelps, G. W., Bradley, R., and Industrial Patents Corp., refined hydrogenated sesamé oil, (P.), B., 1005.

Phelps Dodge Corporation. See Kuzell, C. R., Ralston, O. C., and Staples, H. A. Philadelphia Club, colour permanency, B., 651. Physical properties of mineral spirits, B., 676.

Philadelphia, Lankenau Hospital, effect of cystine disulphoxide on spontaneous tumours of the mouse, A., 504.

Philadelphia Quartz Co. See Albertshauser, F., and Carter, J. D.

Philadelphia Quartz Co. of California. See Baker, C. L.

Philadelphia & Reading Coal & Iron Co. See Grine, H. A.

Philadelphia Rubber Works Co. See Lane, G. F.

Philbrick, S. S., contact metamorphism of the Onawa pluton, Maine, A., 184.

Philip, J. C., hygroscopic nuclei in formation of fog, A., 1198.

Philipp, C., preparation of a-mono-oximes of aryl aliphatic diketones, A., 1110.

Philipp, K. See Erbacher, O. Philippe, M., and Harde, E., diphtheria anatoxin and vitamin-C, A., 647.

Philippoff, W., structure viscosity, A., 788. Theory of structure viscosity. II. Streaming of structure-viscous substances, A., 788. Measurement of streaming of structure-viscous liquids, A., 815. Significance of viscosity for chemistry of cellulose, B., 828. Viscosity properties of rubber solutions. I.—III., B., 1057, 1220. Viscosity problem with large organic polymerides, B., 1166.

and Hess, K., viscosity of organic colloids, A., 426.

Philippon, M. L. A. See Abraham, A. Philippovich, A. von, combustion process in the internal-combustion engine, B., 967. Phillips, A. H., and Hess, H. H., metamorphic differentiation at contacts between serpentinite and siliceous country rocks, A., 1087.

Phillips, A.J., determination of fineness of nitrocellulose by dye absorption, B., 94. Corrosion in liquids, B., 548.

Phillips, B. A. Sco Felsing, W. A. Phillips, C. E. See Becker, M. L.

Phillips, C. J., Raman spectra and the latent heat of fusion of non-associated substances, A., 1318.

Phillips, C. R., and Mack, P. B., effect of dry-cleaning and of water-washing on strength of unweighted and of tin-weighted silks. V (3). Practical drycleaning trials of miscellaneous silks, B., 540, 828.

Phillips, D. L. See Edwards, C. A. Phillips, E. F., liquid honey, B., 761.

Phillips, E. O., Ramage, G. R., and Simonsen, J. L., synthesis of cis- and trans-dl-1isopropylcyclopropane - 1:2 - dicarboxylic acids, A., 984.

Phillips, F. J. See Curtis, G. M.

Phillips, G., cellulose acetate as a cigaretteburn-proof [and alcohol-resistant] finish

for furniture tops, B., 801.

Phillips, H., chemistry of myrobalans. I. Extraction of myrobalans nuts and liquors with organic solvents. II. Nitrogenous and phosphorus-containing constituents of myrobalans and other tanning materials. III. Separation and deposition of chebulinic and ellagic acids from myrobalans tan liquors, B., 754, 804. Cross-link-age formation in keratins, B., 849. Fundamental principles of raw wool washing, B., 1033.

and Balfe, M. P., currying. III. Formation of free fatty acid in curried leather. IV. Prevention of free fatty acid formation in leather, B., 1169.

See also Bean, C. M., Hills, H. W. J., and Kenyon, J.

Phillips, J. T. See Hopwood, F. L. Phillips, M., and Goss, M. J., lignin. X. Lignin from oat straw, A., 994. Determination of lignin. II. Comparison of the modified fuming hydrochloric acid method and other methods commonly used, B., 734.
Goss, M. J., Brown, B. E., and Reid,

F. R., ammoniation of waste sulphite liquor and its possible utilisation as a fertiliser material, B., 1171.

See also Browne, C. A., and Goss, M. J.Phillips, N. E. See Glasebrook, A. L.
Phillips, N. W. F. See Archibald, E. H.,
and Steacie, E. W. R.
Phillips, P. H., English, H. E., and Hart,

E. B., effect of sodium fluoride on basal metabolism of the rat under several experimental conditions, A., 512. Augmentation of toxicity of fluorosis in the chick by feeding desiccated thyroid, A., 518.

Halpin, J. G., and Hart, E. B., influence of chronic fluorine toxicosis in laying hens on fluorine content of the egg and its relation to lipin content of the egg-

yolk, A., 109. See also Haman, K.

Phillips, R. O. See Forestal Land, Timber & Railways Co.

Phillips, W. B. See Minton, C. R. Phillips, W. M., Cole, Guy M., and Gen. Motors Corp., electroplating process [for descaling and tinning iron], (P.), B., 281.

Phillips Chemical Co., C. H., and Walton, B., skin cream containing magnesium hydroxide, (P.), B., 430. Tablets containing magnesium hydroxide, (P.), B., 494. Phillips Petroleum Co. See Buell, A. E., Chaney, L. V., Frey, F. E., Schulze, W. A., and Thomas, R. W.

Phillis, E., and Mason, T. G., transport in the cotton plant. IV. Simultaneous movement of solutes in opposite directions through the phloem, A., 531.
See also Mason, T. G.
Philpott, M. W. See Schidrowitz, P.
Phipers, R. F. See Heilbron, I. M.
Phipps, H. E., and Reedy, J. H., polymorph-

ism, A., 278.

Phipps, T. E. See Copley, M. J. Photo-Cast, Inc. See Bennett, C. W.

Physical Chemistry Research Co., destructive distillation of solid or pasty carbonaceous materials, (P.), B., 1138.

Pi, J. F. See Pi-Suner Bayo, C.

Pi Suffer, A., and Farrán, M., detection of pyruvic acid in urine, A., 1537.

Pi-Suffer Bayo, C., and Pi, J. F., determination of lactic acid, and, in particular, lactacidæmia, A., 1436.

Piaid, O. F. See Sokolov, A. D. Piankov, V. A., absorption of hydrogen sulphide and sulphur dioxide from a current of air, A., 153. Oxidation of alkali halides by molecular oxygen in presence of mercury and active charcoal, A., 686. Microgravimetric determination of small amounts of mercury vapour in air, A., 813.

Pianova, N. I. See Vassiliev, A. M. Piantanida, M. See Prelog, V.

Piatnitzki, M., detection and determination of citric acid in tobacco, B., 298. Piatti, L., binary mixtures. IV., A., 280.

Piaux, L. See Bourguel, M., and Lecomte, J.

Piaw, C. S., emission spectrum of the oxide of tellurium TeO, A., 134. Absorption spectra of the tellurium oxides TeO₂ and TeO, A., 405. New band systems of selenous anhydride SeO2, selenium S2, and of tellurium Te2 in the far ultra-violet, A., 1177.

See also Bloch, L.

Piazza, J., thermal decomposition of systems of solid and gaseous com-

ponents, A., 1481.

and Damianovich, H., thermal decomposition of reversible and irreversible systems forming a gas phase. I. Cathodic platinum oxide and chemically produced platinum oxyhydrate. II. Platinum-helium and platinumnitrogen compounds and the systems reduced platinum-electrolytic platinum-earbon, A., 1473.

Pic, A. See Meyer, Kurt.

Picard, R. See Alsa Soc. Anon.

Piccard, A., and Stahel, E., time coincidence of secondary rays in the Compton

effect, A., 917.

Piccard, J. See Hercules Powder Co.

Picchi, A., ensiling fodder by the Crema method, B., 427.

Pieha, V. See Stimmel, B. F.

Pichamuthu, C. S., Kaldurga conglomerates and the iron ore series of the Bababudans, Kadur district, Mysore, A., 308. Iron formations and associated rocks of the Eastern Bababudans, Kadur district, Mysore, A., 450. Bababudanite, a soda-amphibole from the banded ferruginous quartzites on Mysore, India, A., 585.

Pichler, F., utility of hydrogen peroxide as a seed dip, B., 36. Laboratory testing of seed dips, B., 563.

Pichler, H., thermal conversion of heavy oil from the benzine synthesis into unsaturated and aromatic hydrocarbons, B., 51.

See also Fischer, F., and Koch, H.

Picinelli, G. See Guercio, F. Pick, H., Grnschka, T. [with Krob, E. and Linke, A.], over-chlorination and dechlorination of drinking water, B., 765.

Pickard, G. L., electronic specific heat in palladium, A., 1058.

Pickard, J. A., filtering media [paper] in sheet form, (P.), B., 256.
Pickard, R. H. See Morgan, (Sir) G. T.

Pickat, A. K., Kurtzina, O. I., and Zenin, N. S., rôle of phosphatides in nutrition, A., 232. Effect of food phosphatides on chemical composition of the body,

A., 630.

Zenin, N. S., Alexeeva, P. I., and Kurtzina, O. I., nutrient value of edible fats and oils. I. Margarine and soya-bean oils, B., 855.

Pickels, E. G., vacuum centrifuge, A., 1355. See also Biscoe, J.

Pickels, W. M., jun. See Du Mond. J. W. M.

Picker, E., and Rudinger, G., preparation of a sensitive vacuum thermoelement,

Pickering, H., liquefied fuel gas, B., 580. Pickering, S. F. See Smith, F. A. Pickering, W. H., production of cosmic-ray

showers, A., 1046. Piekett, C. F., oil-soluble unmodified phenol-formaldehyde resins, reactive and non-reactive; heat-hardening phenolformaldehyde resins, B., 751.

Pickett, F. N., treatment of vulcanised rubber, (P.), B., 162. Purification of oils and spirits obtained by distilling indiarubber, (P.), B., 512. Hard rubber [ebonite] powder, (P.), B., 512. Treatment [regeneration] of rubber, (P.), B., 561. Production of solvents from rubber, (P.), B., 803. Rubber moulding powders, (P.), B., 803.Pickett, O. A. See Hercules Powder Co.

Pickford, G. E. See Petrunkevitch, A. Pickholz, S. See Hamburg, M., and

Krumholz, P.

Pickles, J. See Pickles, R. Pickles, N. J. T., and Hinshelwood, C. N., influence of solvents on reaction velocity; interaction of pyridine and methyl iodide and benzoylation of m-nitro-

pickles, R., and Pickles, J., spinning solution for production of synthetic filaments or threads, (P.), B., 269. Spinning solutions and production of elastic yarns therefrom, (P.), B., 289.

Pickup, E., anomalous values of lattice spacings obtained by electron diffraction, A., 1055.

See also Williams, E. J.

Pickup, L. See Owen, E. A.

Piegai, A., apple flour, B., 471.

Picon, M., formulæ of basic salts of bismuth, A., 440. Basic organic salts of bismuth, soluble in organic solvents, A., 460.

Pidgeon, L. M., carbon black. I. Its production by thermal decomposition of hydrocarbon gases. II. Channel process-production from natural gas of

Turner Valley, Alberta, B., 225, 724.

Piech, T., dielectric polarisation of alums,
A., 924.

Piehl, S. O., packing materials for use with metal-seal caps for bottles, (P.), B., 928. Piekara, A., magnetic changes $[\Delta \epsilon]$ of dielectric constant of liquids in a

field of 20.4 k.-gauss, A., 408. . and Piekara, B., dielectric constant and conductivity of gelatin sols and gels, A., 158.

and Scherer, M., magnetic change of the dielectric constant of liquids, A., 666.

Piekara, B., anomalous behaviour of the dielectric constants of the higher organic acids near the f.p., A., 1182. Sec also Piekara, A.

Pien, J., and Baisse, J., electrical method of deacidifying milk, B., 296.

Baisse, J., and Martin, R., diacetyl, A., 457, 825.

Pieńkowski, S., and Jurkiewicz, L., X-ray examination of resin in wood, A., 1035. and Kuleszanka, Z., microcrystalline structure of thorns, A., 1035.

Pieper, J. J., Sears, O. H., and Bauer, F. C., lespedeza in Illinois, B., 293.

Pier, M. Sec Standard-I. G. Co.

Pierantoni, U., symbiosis and digestion of cellulose in termites and in mammals, A., 1027.

Pierce, A. E., and Rising, M. M., mechanism of the narcosis induced by hypnotics. II. Synthesis of coloured derivatives of phenobarbital [5-phenyl-5-ethylbarbituric acid], A., 1268.

Pierce, E. L. See Pierce, G. C.

Pierce, G. C., and Pierce, E. L., method of disintegrating material, (P.), B., 815. Pierce, H. B., absorption and utilisation of

carbohydrates [by animals], A., 511. See also Nasset, E. S.

Pierce, I. T., and Roberts, R. W., photographic measurement of the magnetic rotatory dispersion of water, A., 271.

Pierce, J. A. See Connolly, G. C., and

Montgomery, H.
Pierce, R. H. H., jun., and Austin, J. B.,
comparison of the thermal expansion of used silica brick from an insulated and an uninsulated open-hearth furnace roof, B., 1153.

See also Austin, J. B.
Pierce, W. H., identification of viruses

affecting leguminous plants, B., 423. Piercy, N. A. V., and Preston, J. H., simple solution of the flat-plate problem of skin friction and heat transfer, B., 527.

Piéret. See Gilard, P. Pierpoint, A. J., and Crouch, R. H., electrical treatment of water for the purpose of reducing hardness, (P.), B., 958.
Pierre, W. H., and Browning, G. M.,

temporary injurious effect of excessive liming of acid soils, and its relation to phosphorus nutrition of plants, B.,

See also Taylor, J. R., jun. Pierrejean, (Mlle.). See Laporte, M.

Pierret, H. See Stainier, C. Piersol, R. J., influence of bath temperature on chromium [plate] hardness, B., 328. Influence of sulphate on chromium[-plate] hardness, B., 414. Smoke index: a quantitative measurement of smoke, B., 864. Influence of various acid radicals on chromium [plate] hardness, B., 997. Smokeless briquettes impacted from partly volatilised Illinois coals, B., 1025.

Pierson, G. G., and Perkins Glue Co., glue, (P.), B., 290. Glue and glue paste, (P.), B., 850.

Pierucci, M., atomic dimensions, A., 543. Electric arcs with liquid positive pole, A., 655. Sparks between flame electrodes, A., 770. Alteration of conductivity of thin metal sheets, A., 929. and Silva, L. B., spectroscopic investigations on flames in relation to ionis-

ation potentials, A., 916. Pietenpol, W. B., mass spectrograph, A.,

1084.

See also Westerfield, E. C.

Pieters, H. A. J., pitch content of egg briquettes, B., 353. Wet purification of coke-oven gas, B., 773. Determination of the m.p. of coal ash, B.,

Koopmans, H., and Hovers, J., carbonisation of vitrains and their mixtures, B.,

433.

See also Hovers, T., and Koopmans, H. Pietrafesa, F., protection of iron by directly applied electro-deposits of zinc and cadmium, B., 201.

Piette-Rivage, L. von. See Csipkay, K. von. Piettre, M., proteins of hen egg-yolk, A., 624. Permeability of the mammary gland, A., 625.

See also Achard, C.

Pietzner, J. See Senftleben, H.

Pietzsch, A., and Elektrochem. Werke Münehen A.-G., hydrogen peroxide, (P.), B., 1039.

Pietzsch, K. F. See Jaeger, A. O. Piffault, C. See Levin, B. S.

Pigeaud, M. L. See Cheftel, H.

Piggott, H. A. See Imperial Chem. Industries.

Pighini, G., radioactivity, iodine, and the thyroid, A., 756. Anterior pituitary hormone and the male genital apparatus: problem of puberty, A., 1030.

and Rülke, O., measures of radioactivity in zones of endemic goitre, A., 756.

Pigman, W. W. See Isbell, H. S.
Pigott, M. G. See Holmes, A. D.
Pigulevski, G. V., influence of climatic conditions on resin content of needles of coniferous trees, A., 911.

and Karasik, E. L., Sium latifolium, L., seeds, A., 911.

and Tschistova, Z. G., essential oil of

Nepeta botryoides, Ait, B., 571. Pigulevski, V. V., and Jarshemskaja, E. J., catalytic oxidation of benzene in the gascous phase, B., 536.

Pijanowski, E., acidity of butter, B., 664. Pijoan, M., blood-coagulating substance produced by staphylococci, and its relation to disease, A., 1403.

Pike, E. J., special apparatus used for testing aluminium alloys, B., 327.

Pike, E. W., mean lifetime of metastable neon atoms, A., 653. Penning's "new photo-effect" in pure neon, A., 653. Pike, F. H. Sec Coombs, H. C.

Pike, N. R., invert sugar as a plasticiser in

paper, B., 313. See also Ficklen, J. B., and Newell, I. L.

Pikl, J. See Julian, P. L. Piland, J. R. See Willis, L. G.

Pilat, M., action of insecticides on intestinal tube of insects, B., 386.

Pilat, S. von, fractionation of heavy oils by means of solutions of gases, B., 775.

See also Müller, Jacob, and Neyman, E. Pilati, L., tolerance of cells cultivated in vitro to action of quinine dichloride, A., 376.

Pilcher, C. See Wilkins, W. E. Pilgrim, A. See Hatt, H. H.

Pilkington Brothers, Ltd., and Clitherow, W. B., tempering of glass, (P.), B., 103.

and Forbes, L. J. B., manufacture of articles of glass in combination with plastic materials, (P.), B., 1041. Furnaces for heating glass plates for tempering, (P.), B., 1094. Forbes, L. J. B., and Wilson, J., temper-

ing of glass sheets, (P.), B., 276. and Jennings, V. W., coloured-glass transparencies, (P.), B., 234. and Mittord, J. B., 120.

articles, (P.), B., 933.

and Wilson, John, tempered glass sheets,

(P.), B., 61.
Pillay, P. P. See Dey, B. B.
Pilling, J. E., composition for use in soldering chain links, (P.), B., 844.

Pilling, N. B. See Kihlgren, T. E. Pillow, M. Y., and Bray, M. W., properties and sulphate-pulping characteristics of compression wood, B., 185.

Schafer, E. R., and Pew, J. C., occurrence of compression wood in black spruce and its effect on properties of

groundwood pulp, B., 538.

Pillsbury, D. M. See Beerman, H. Pilo, C. W. Sec Hultman, G. H.

Piña de Rubies, S., and Aguado, J. G. analytical and quantitative lines of hafnium in the arc spectrum, A., 769.

and Bargués, M. A., spectrographic analyses of some Spanish medicinal waters. III., A., 957.

and Lemmel, L., spectrum analysis of some woods from Spain and Fernando Po, A., 1035.

and Lopez de Azeona, J. M., spectrum analysis of blende by pyroelectric concentration, A., 817.

Pincherle, L., intensity of L lines of gold, A., 917. Auger effects, A., 917.

Pinchin, Johnson & Co., Ltd. See under Docker Bros.

Pinck, L. A., and Hilbert, G. E., interaction of amines and ammonia with di(diphenylenc)ethylenc, A., 328. Pinckard, J. A. See Keitt, G. W.

Pineus, G., and Kirsch, R. E., sterility in rabbits produced by injection of estrone and related compounds, A., 1427.

and Werthessen, N. T., estrogenic activity of certain phenanthrene and hydrophenanthrene derivatives, A., 1148.

Pinczési, I. Sco Zechmeister, L. Pindur, J. See Heller, K.

Pine, W. B. Sce Isham, R. M.

Pine-Felt Corporation. See Ratliff, A. T.

Pineo, O. W. See Hilger, Ltd., A. Pines, H. Sco Ipatiev, V. N.

Ping, K., cracking of peanut [groundnut]

oil, B., 1164.

Pinkevitseh, J. A. See Tsehernoshukov,

Pinkney, P. S., Nesty, G. A., Wiley, R. H., and Marvel, C. S., hydrophenanthrenes and related ring systems from dieneinenes, A., 1101.

Pinösch, H. See Bloch, W.

Pinotti, F., renal elimination of vitamin-C in experimental nephritis, A., 231. See also Martini, E.

Pinsker, S. G., and Tatarinova, L. J. diffraction of rapid electrons in crystallised rock-salt. II., A., 670.

Pinsl, H., photometric determination of silicon in presence of iron and accompanying elements, B., 278.

Pinte, J., faults in goods knitted from mercerised [cotton yarns], B., 736.

Piotrowski, G., action of zinc salts on blood, A., 224. Hypoglycamic action of methylene-blue, A., 373. Pernocton urcthane; therapy of combination of hypnotics, A., 1293.

Piotrowski, W. von, and Winkler, J.,

preparation of compounds from waste products obtained in refining of cracked mineral oils, (P.), B., 357.

Pipe, C. R. See Edwards, C. A. Piper, C. S., exchangeable hydrogen in soils, B., 805.

and Stevens, C. G., comparison between Schofield's p-nitrophenol buffer method and Prescott and Stephens' method for determining the lime requirement of soils, B., 805.

Piper, \tilde{J} . D., Thomas, D. E. F., and Smith, C. C., liquid dielectrics; effect of soluble oxidation products on power factor and conductivity of liquid paraffin, B., 699. Oil-impregnated paper; effect of anhydrous oxidation products on power factor and conductivity, B., 844.

Piper, S. H. See Chibnall, A. C.

Pipik, O., [conversion of the] amylene fraction [into amyl alcohol], B., 536.

Piquerez, E., [storage arrangement for] protection against fire of stocks of spontaneously inflammable materials, (P.), B., 913. Piradjan, T. V. See Gutman, S. M.,

and Veinberg, G. J.

Pirani, M., and Rompe, R., photometry of different coloured light sources, A., 581.

Piratzky, W., viscosity of malt wort, B., 518.

Piraux, E., Hacquart, A., Joassin, F., and Desmet, F., green fodder ensilage in Belgium, B., 522.

Pire, L. R., and Garrido, J., blast-furnace slag, B., 792.

Pirie, D. J. C. Sec McKenzie, A.

Pirie, H. L., coal for mechanical stokers,

Pirie, J. H. H., and Grasset, E., conanti-plague scrum, centrated 1010.

Pirie, N. W., hyperacetylation of aldoses, A., 593. Preparation of dl-galactose hepta-acetate by the acetolysis of agar, A., 593.

Pirlot, A. See Gillet, A.

Pirnie, M., supplying less-corrosive soft water, B., 222

Pirquet, A. See Juliusburger, F. Pirrone, F., enzymic determination of vitamins, A., 253. Alicyclic compounds. II. Electrolytic oxidation of cyclohexanone. III. Synthesis of β -ketoamines, A., 987, 1379. Constitution of cholesterol. XII. Isomerisation by monochloroacetic acid, A., 1247. Hydroxyquinolines. II. Synthesis of quinolinoisooxazines, A., 1526.

and Cherubino, A., hydroxyquinolines. I. Iodo-derivatives of 8-hydroxy-

quinoline, A., 83.

and Roselli, (Signa.) J., alicyclic compounds. IV. Schiff's bases of 6and 2-a-aminobenzyl-2-methylcyclohexanone, A., 1379.

and Rossoni, P., double salts of mercuric cyanide with the azides of the alkali and alkaline-carth metals, A., 945.

Pirsch, J., isomorphism and its dependence on the spatial structure of organic compounds, A., 926. Regulated behaviour of the magnitude of mol. depression of the m.p. of mixtures of solvents from isomorphous organic compounds, A., 929.

Pirschle, K., comparative effects of the elements on the growth of Aspergillus niger (stimulation and toxicity), A., 1153.

Pisa, M. See Coppo, M. Pisani, F., nitrocellulose from the residues of the extraction of liquorice roots, B., 1146. Pisarenko, A., preparation of reclaimed rubber from vulcanisates made of synthetic rubber, B., 655.

Pisarev, K. See Kasarnovski, J. S.

Pischtsehimuka, P. S., resinic acids of Pinus sylvestris resin. I. and II., A., 81. and Karkuzaki, L. I., analysis of galipot, B., 651.

Pishov, V. See Temkin, M. Piskunova, V. N. See Lialikov, C. S.

Pissaro, I. See Peano, E.

Pissarewsky, J. Y., buffalo milk, B., 1015. Piston, D. S., polarisation of X-rays from thin targets, A., 399.

Pistor, H.J. See Wieland, H.

Pitkin, W. R. See Gen. Electric Co. Pitman, E. C. See Du Pont de Nemours & Co., E. I.

Pitman, G. A. See McCharles, C. H.

Pitt, A., and McKinley, D. W. R., variation with temperature of piezo-electric effect in quartz, A., 671.

Pitt, N. P., Halferdahl, A. C., and Lathe, F. E., refractories, (P.), B., 990.

Pittarelli, E., and Pittarelli, M., reactions of vitamin-C, A., 255.

Pittarelli, M., oxalates and formates in organic fluids, A., 190.

See also Pittarelli, E.

Pitter, A. V. See North Brit. Rayon. Pittman, E. W., and Petroleum Iron Works Co. of Texas, oil and gas separator, (P.),

Pittman, M., interrelationship between amount of V-factor and amount of air necessary for growth of Hæmophilus influenzæ, type b, in certain media, A., 113.

Pittman, M. S. See Kunerth, B. L., and Long, Z.

Pittoni, A. See Calker, J. van. Pitts, H. C. See Bowman, R. O.

Pitts, R. F., effect of protein and aminoacid metabolism on urea and xylose clearance, A., 103. Clearance of hexamethylenetetramine in the dog, A., 1410. Pittsburgh Plate Glass Co., plate glass, (P.), B., 409.

See also Gelstharp, F., and Showers, L. Pittsburgh Research Corporation.

Moore, W. E.

Pitzer, E. C., and Amer. Smelting & Refining Co., removing impurities from metallurgical solutions [copper-

refining electrolytes], (P.), B., 282. Gordon, N. E., and Wilson, D. A., reduction of uranyl ion in the uranyl oxalato actinometer, A., 304.

Pitzer, K. S., crystal structure of tetramminocadmium perrhenate, $Cd(NH_3)_4(ReO_4)_2$, A., 413.

Piutti, P., action of selenium dioxide on β-diketones, A., 1127. Compounds of pyrrole with furfuraldehyde. I. Furfurylidenepyrroles, A., 1129.

[with Marini, G. B.], action of phenols on quinoxalinio and aoridinio anhydrides, A., 1127.

Pivoteau, M. Seo Laneien, A.

Pivovarova, A. See Pavlov, K. Pivovarsky, E. See Schmid-Burgk, W., and Söhnchen, E.

Piwonka, R., hemimethylcellulose, A., 1235. See also Traube, W.

Pizer, N. H., determination of the acidity

of milk, B., 1015.
Pizzolato, P. See Martin, L. F.
Placzek, G. See Frisch, O. R.
Plagge, H. H. See Maney, T. J.

Plahl, W., detection of cacao husks in cacao, B., 121.

Plaizier, J. A., rubber dispersions, B., 289. Plakidas, A. G., action of Bordeaux mixture on Mycosphærella fragariæ, B., 116.

Plaksin, I. N., water of crystallisation of certain complex salts and of nickel

sulphate, A., 1464. and Schibaev, S. V., velocity of solution of gold, silver, and copper alloys in aqueous cyanides in connexion with the phase diagrams of the systems gold-copper, silver-copper, and gold-silver, A., 1455.

Planck, M., quantity parameter, intensity parameter, and stable equilibrium, A.,

Planiel, R., production of intense beams of slow electrons, A., 656. Ionisation and luminescence of atomic beams in a high vacuum, A., 657.

Plank, H. K. See Cressman, A. W.

Plank, J., detection of small amounts of hydrogen peroxide, A., 177.

Plank, J. E. van der, determination of sugars in the leaf of the mangold (Beta vulgaris). I. Fructose, glucose, and su-crose. II. Use of basic lead acetate, charcoal, and yeast to avoid interference by substances other than sugars. III. Application of copper reagents to unclarified extracts. IV. Tests for raffinose, maltose, galactose, and pentose, A., 650.

Planktokoll Chemische Fabrik G.m.b.H., and Carpzow, J. B., refining of mineral, vegetable, or animal oils, paraffins, waxes, resins, etc., (P.), B., 136.
Plano-Finishing Co., Inc. See Kirby, W. W.

Plant, S. G. P., structural problems in the indole group; 5- and 7-nitrotetrahydrocarbazoles, A., 1124. and Rogers, (Miss) K. M., tetrahydre-

carbazoles with substituents in the 7-position, A., 343.

See also Mitchell, D. R.

Plantinga, O. S., and Rodden, C. J., detection of lanthanum, yttrium, and ytterbium from spark in flame spectra, A., 952. Plastix Corporation. See Meigs, J. V.

Plass, C. E. See Olson, J. W. Plass, O. See Haase, C.

Plastergon Wall Board Co. See Fletcher, J. Plastix Corporation. See Meigs, J. V.

Plate, A. F. See Kasanski, B. A.

Platenius, H., determination of volatile sulphur content and pungency of onions,

Platkovskaja, V. M., and Vechotko, T. I., application of copper salts of polyhydric alcohols to the detection and determination of reducing sugars, A., 619.

Plato, G., Kleen, W., and Rothe, H., space charge for electrons with initial velocities,

A., 1439.

Platon, B., Hermansson, P., Edin, H., and Hansson, L., effect of forage plants in producing oiliness in butter and on iodine value of butter fat, B., 217.

Platonov, M. S., and Anissimov, S. B., action of alkyl halides on thio-aldehydes and -esters, A., 55.

Anissimov, S. B., and Krasehennikova, V. M., catalytic properties of rhenium. II. Dehydrogenation of the propyl alcohols, A., 820.

and Nekrassova, O. V., selective combustion of hydrogen, carbon monoxide, and methane by palladium catalysts, A., 1472.

See also Anissimov, S. B., Knorre, G. F., and Nekrassova, O. V.

Platt, C. S., and Stephenson, A. B., influence of commercial limestone and mica grits on growth, feed utilisation, and gizzard measurements of chicks, B., 297. Platt, R. See Holling, H. E.

Platt, W. C., and California Fruit Growers' Exchange, extraction of pectin, (P.), B.,

Platte, J. A., and De Vries, G. H., processes for continuously crystallising sugar solutions, (P.), B., 1226.

Plattner, F., point of attack of acetylcholine in the heart; does nicotine inhibit the cardiac action of acetylcholine? A., 516.

and Tsudzimura, H., acetylcholine and choline in organ extracts, A., 500.

Plattner, P. Sce Pfau, A. S. Platz, H. Sce Schenk, P. W. Platzer, N. Sce Späth, E.

Platzmann, C. R., determination of proportions in mortar and concrete, B., 21. Power transmission in chemical works, B., 79. Sodium silicate as protective medium for concrete, B., 194. Testing of black bituminous paints for coment and masonry, B., 702. Coloured concrete products, B., 837.

Platzmann, M., starch content of potato flakes, B., 1226.

Plaut, F., and Bülow, M., ascorbic acid content of blood and cerebrospinal fluid, A., 119. Comparison of the vitamin-C (ascorbic acid) content of cerebrospinal fluid and of urine in hypervitaminosis-C, A., 119. Examination of cerebrospinal fluid for detection of hypovitaminosis-C, A., 255. Vitamin-C in brain and cerebrospinal fluid; effect of diet on vitamin-C content of the fluid: examination of the fluid in diagnosis of latent scurvy, A., 530. Vitamin-C content of different parts of the nervous system, A., 766.

Player, E., and Hind, W., gas-fired furnaces, (P.), B., 47.

and Magnesium Development Corp., sand moulds [for casting magnesium alloys], (P.), B., 26.

Płażek, E., Marcinków, A., and Stammer, C., 3-aminopyridine. II. Methyl derivatives, and acetamido- and formamido pyridine, A., 210.

and Rodewald, $Z_{\cdot,\cdot}$ synthesis of alkeines derived from mandelic and tropic acids, A., 468.

Rodewald, Z., and Krzyżaniak, D., synthesis of alkeines derived from O-phenyl-lactic and -mandelic acid, A., 331.

See also Marcinków, A., and Rodewald,

Pleasance, B. See Pearson, A. R. Pleass, W. B., pickling of sheepskins. III. Pickling in presence of disinfectants, B., 512. Colorimetric determination of $p_{\rm H}$ values of tanning liquors, B., 657.

Plechan. See Itkina, A.

Plegunov, V. P. See Boreskov, G. K. Plentl, A. A. See Niederl, J. B.

Plenz, F., designing of gasworks with reference to recovery of benzol, B., 725. Pleschkova, S. See Tiutiunnikov, B.

Pleskov, V. A., electrode potentials of halides in liquid ammonia, A., 161.

and Monossohn, A. M., electrode potentials of sodium and potassium in liquid ammonia, A., 161. Electrode potentials in water and in liquid ammonia, A., 161.

Pleśniewicz, S., diffusion of potassium ferrocyanide, ferricyanide, and dichromate, and of sodium, magnesium, potassium, and calcium chloride, and the mobility of the ions of these salts, A., 1071. Diffusion coefficient of potassium perrhenate, A., 1071.

Pless, J. See Bienenstock, M.
Plesset, M. S., neutron-proton exchange interaction, A., 660.

Plessey Co., Ltd., etching of electrodes, (P.), B., 798. Electrolytic condensers, (P.), B., 844.

Pletenev, S. A., and Kuznetzova, V. V., behaviour of antimony in electrolytic refining of copper, B., 201.

Pletenjeva, N. Sco Weichherz, J. Pletnikova, E. I. Sce Bruevitsch, S. V. Plettinger, E. Sce Müller, W. J.

Plissov, A. K., mechanism of oxidation of paraffin hydrocarbons, A., Oxidation of paraffin, B., 178. Properties of peroxides formed during the oxidation of paraffin, B., 866.

and Goldovski, B., continuous process for preparation of acids by oxidation

of hydrocarbons, B., 627.

Golendeev, V. P., and Zeltzburg, A. I., preparation of hydroxy-acids from solar oils, B., 728. and Maleeffa, E., influence of water on

oxidation of hydrocarbons of high mol.

wt., B., 866. Plock, C. H. Sec Hempel, M.

Ploeger, C. E. See Kuenzli, W. A.

Plötner, K., nephelometry of blood-proteins. I. Rapid determination of globulin. II. Sulphosalicylic acid reaction in determination of proteins. III. Nature of the protein-sulphosalicylic acid turbidity reaction; interrelationship of serum-proteins, A., 1008, 1400. Determination of serum-proteins, A., 1400.

Ploetz, A. O. See Hope, H. B. Plotkin, Z. I. See Schuikin, N. I.

Plotnikov, I. V., insoles from multi-layered fabric, B., 924.

Plotnikov, V. A., non-aqueous solutions. I. Ternary systems, A., 1065. Thermodynamic equations at the absolute

zero, A., 1069. Fialkov, J. A., and Tschali, V. P., conductivity of solutions in iodine.

II., A., 937.

Fischer, P. Z., and Barabanov, V. P., effect of non-electrolytes on the conductivity of electrolyte solutions, A., 1071.

and Fortunatov, N. S., solution of elements in molten AlCl₃-NaCl, A., 1063. Decomposition potential of aluminium chloride ammines, A., 1072.

and Gorenbein, E. J., compounds of aluminium bromide with lithium, copper, and silver bromides, A., 173, 1071.

Plotnikov, V. A., and Gorenbein, E. J., electrochemical study of lithium, rubidium, and silver bromides in a solution of aluminium bromide in ethyl bromide, A., 430. Electro-chemical study of the systems aluminium bromide-silver and copper halides-organic solvents (ethyl bromide, ethylene dibromide, benzeno), A., 1071. Electrochemical investigation of the ternary system aluminium bromide-silver and copper halides in ethyl bromide, ethylene dibromide,

and benzene, A., 1341.
and Gratzianski, N. N., electrolytic tantalum-plating of metals in molten

salt mixtures, B., 842.

and Jakubson, S. I., electrochemical investigation of the ternary system AlBr₃-AsBr₃-benzene, A., 292. Electrochemical study of solutions of acetamide in bromine, A., 430. Galvanie concentration cells with insoluble electrodes, B., 844.

Katznelson, I. L., and Bernsehtein, O. V., conception of elements in chemistry. II. Ancient Greek philosophy, A., 1086.

Katznelson, I. L., and Gratzianski, N. N., electrolytic lead-plating in fused mixture of lead, aluminium, and sodium chlorides, B., 201.

Kiketz, V. A., and Korol, L. A., electrochemical study of the systems AlBr₃-BiBr₃ in benzene, A., 1071.

Kiketz, V. A., and Radomski, P. A., electrochemical study of the systems AlBr₃-SbBr₃ in toluene, A., 1071.

Kudra, O. K., and Mejenny, J. F.electrochemical investigation [mixed solutions of] aluminium and potassium bromides in solvent mixtures, A., 683.

and Razumov, V. K., fixation of atmospheric nitrogen in the field of a Tesla

transformer, B., 832.

and Zosimovitsch, D. P., electrochemical production of aluminium from aluminium ehloride, B., 842.

Ploum, H., hydrogen in steel, B., 793.

Plouvier, V., occurrence of amygdonitrileglucoside in the genus Cotoncaster, and in leaves of Cydonia vulgaris, Pers, A., 650.

Ployé, M., influence of aluminium on properties of ordinary cast iron, B., 104.

Plum, K. See Blume, W. Plum, M., causes of differences in butter fat production of cows in Iowa cowtesting associations, B., 666.

Plumley, H. J., ultra-violet absorption in hydrogen fluoride, A., 544.

See also Siga, K.

Plummer, A. J. See Rowe, A. W. Plummer, F. B., and Sargeant, E. C.,

underground waters and sub-surfaco temperature of the Woodbine Sand in north-east Texas, B., 430.

Plummer, H. C., relation of growth to toxin production of the Dochez N.Y. 5 strain of hæmolytic streptococcus, A., 248.

See also Fraser, F. H.

Plummer, H. L. Seo Du Pont de Nemours & Co., E. I.

Plummer, R. W. See Du Pont de Nemours & Co., E. I. Plummer, W. B. See Standard Oil Co.

Plungnian, M., and Jahn, E. C., fireproofing of fibre boards, B., 57.

Plyler, E. K., and Barr, E. S., reaction rate of acetic anhydride and water, A., 34. Infra-red absorption spectra of acetic acid and acetic anhydride, A., 1318.

and Williams, Dudley, infra-red absorption spectra of HCl in benzene, A., 406. Infra-red absorption spectra of deuteroxide solutions in deuterium oxide, A., 545.

See also Barr, E. S., and Williams,

Dudley. Po, W. W. See Zé, N. T.

Pochino, M., vitamin-C in fresh apples and in apple powder, A., 120.

Pochon, J. See Cotoni, L.

Pochvisnev, A. N., and Gontscharevski, M. S., reducibility of Krivorog ores, B.,

Pockels, U. Seo Wittig, G.

Podalko, E. A. Sec Ivaschtschenko. J. G.

Podaschevski, M. N., effect of photochemical colouring on extension and strength limits of single crystals of rock-salt, A., 17. Photo-electric method for determining elastic limit of an X-

rayed rock-salt crystal, A., 785.

Podbielniak, W. J., centrifugal fractionation, (P.), B., 400. Centrifugal countercurrent contact apparatus, (P.), B., 400. Analysis of liquid and gas, (P.), B.,

529.

Podczaski, B. See Loskiewicz, L. Poddubni, V. See Tartakovski, P. Podestà, H. H. See Wachholder, K. Podjapolskaja, A. See Medvedev, S. Podkopaev, N. P. See Juferev, V. F. Podlewski, J. K., and Suszko, J., hydro-

bromoquinine, A., 870.

Podolskaya, M., red gossypol,

Podolsky, F., and Malorny, G., sodium content of mammalian muscle, A., 499.

Podschus, E., Hofmann, U., and Leschewski, K., X-ray investigation of the structure of ultramarine-blue and its reaction products, A., 1327. See also Leschewski, K.

Podtschainova, V.N. Seo Karpatschev, S. Podzimková-Rieglová, M., evaluation of antirachitic vitamin in comparison with the international standard, A., 530.

Poe, C. F., composition of commercially canned tomato juice, B., 346. Determination of camphor in camphor liniment. IV. Use of antioxidants,

and Dewey, B. T., addition of hydrogen peroxide in the determination of nitrogen in organie compounds, A.,

and Schafer, R. R., combination of catalysts to reduce digestion time in determinations of nitrogen [in dairy products], B., 665. Warnock, R. M., and Wyss, A. P.,

action of dilute acids on aluminium,

В., 327. See also Hultquist, M. E.

Pöhls, F. H. See Keil, W.

Poelman, A., and Établ. R. Schneider, air filters for use in connexion with gas masks and poison-gas shelters, (P.), B., 254.

Popperle, J., selective flotation of coal, B., 529.

See also Bierbrauer, E, and Eschenbach, J. Pöpping. See Dörffel, I.

Pöschel, A. B., and Decorative Development, Inc., ornamentation [of leather], (P.), B., 451. Method of and apparatus for printing and dyeing, (P.), B., 451.

Poethke, W., determination of free alkali in soaps. II., B., 158. Decoctions and infusions, B., 954.

See also Bauer, K. H.

Poetschke, P., treatment of motor fuels, (P.), B., 630.

Poeverlein, H., slow positive potassium ion

rays, A., 1171.

Pogany, A., determining abrasion-resistance of concrete from that of the mortar and aggregates, B., 194.

Poggio, F., spectrum of tungsten I, A., 916.

Seo also Catalán, M. A.

Pogorelui, A. D., formation and decomposition of nickel ferrites, A., 576.

Pohjakallio, O., manuring of newly cultivated land, B., 384. Pohl, A. W. See Luce, R. H.

Pohl, E., welded pressure vessels for low temperatures, B., 863.

Pohl, J. See Mahl, H. Pohl, K. See Pfeiffer, G.

Pohl, R., endosperm growth-substance and the growth-substance of the colcoptilo tip, A., 1163.

Pohl, R. W., electronic conduction in alkali halide crystals, A., 139.

See also Hilsch, R.

Pohland, E., behaviour of some solidified gases in polarised light, A., 1056.

Pohlman, R., and Schumacher, H. J., structure of the chlorine monoxide

molecule, A., 1324.

Pohlmann, C. W., displacement of the anisoyl group in the nitration of dimethoxybenzophenones, A., 1110.

Poindexter, C. A., and Bruger, M., effect of low calorific diets and resultant loss in weight on plasma-cholesterol in the obese, A., 102.

Poindexter, F. E., effect of pressure on the refractive index of carbon disulphide,

Poindexter, R. W. See Goodwin, N.

Pointon, J. E. See Harber, L. S. Poirier, E., control of paper stock, (P.),

B., 96. Poirot, A., positive rays; application to

study of the Stark effect, A., 130. Poirot, G. See Hérissey, H.

Pokrovski, N. L. See Bering, B. P., and Sementschenko, V. K.

Polacci, G., Oddo, B., and Gallotti, M., effect of the pyrrole nucleus on formation of chlorophyll, A., 394.

Polachek, A. A. See Curtman, L. J.

Polaczek, M., halogenosulphobenzoic acids, A., 467. Sulphonation of acridone, and transformations of acridone-3-sulphonic acid, A., 484. 3-Bromo-7-nitroacridone, A., 999.

Polanyi, M. See Bergmann, E., Calvin, M., Eley, D. D., Evans, M. G., Heller, W., and Horiuti, J.

Polayes, S. H., and Eckert, E. A., indican test on blood and urine in renal insufficiency, A., 366.

Pole, G. R., and Moore, D. G., testing refractories against the corresive action of electric furnace phosphate slags, B., 1153.

and Taylor, N. W., kinetics of solid-phase reactions of certain carbonates with mullite, silica, and alumina, B., Polessitski, A., solubility and activity of the halogenates of some bivalent metals; solubility and activity of barium iodate and lead iodate in water and in solutions of electrolytes, A., 421.

and Tolmatschev, P., solubility and activity of the halogenates of some bivalent metals. III. Solubility and activity of radium iodate in water and in solutions of electrolytes, A., 1456.

Poletaev, A. V. See Nemtzov, M. S. Poletaev, N. V. See Gusinskaja, S. L. Poley, W. E. Seo Franke, K. W. Polheim, E. P. von, hydrolytic equilibria

of calcium aluminate hydrates, A.,

Policard, A., Bonnet, P., and Bonamour, G., histospectrography of the corneal ring of Kayser and Fleischer, A., 1138.

and Ferrand, M., ascorbic acid content of the ovary and corpus luteum at different stages of the estrous cycle, A., 906.

Seo also Manceau, P.

Polievktova, M. A. See Krause, V. P. Polin, H. S., and Polin, Inc., polishing composition, (P.), B., 335.

Polin, Inc. See Polin, H. S. Polinov, B. B., transformation of absorbed anions in Adsharien red earth, A., 450.

Polissar, M. J., kinetics of the reaction between permanganate and manganous ions, A., 34. Reaction in a solution containing oxalic acid, permanganate ion, and manganous ion, A., 570. Radioactive manganese as an indicator in testing for possible equilibria between several valencies of manganese, A., 1172.

Poljakov, M. V., induced oxidation of nitrogen, A., 439.

and Elkenbard, A. T., reality of the chains in heterogeneous-homogeneous catalysis, A., 167.

and Malkin, I. M., reality of chains in

gas explosions, A., 162. Neimark, I. E., and Malkin, I. M., kinetics of adsorption of vapours by highly active adsorbents, A., 283.

and Stadnik, P. M., production of hydrogen peroxide from hydrogen and oxygen, A., 944.

Poljakov, V. D., nickel- and chromium-plating of tungsten filaments, B., 936.

Poljakova, A. M., Preobrashenski, V. A., and Preobrashenski, N. A., alkaloids of jaborandi leaves. IX. Synthesis of r-isopilocarpine, A., 1002.

Seo also Preobrashenski, N. A. Poljakova, H. V. See Finkelstein, V. S.

Poljakova, I. Seo Kirsanov, A. Poljanski, T. V., preparation of chemically

pure hydrochloric acid, B., 190. Pollack, H. See Lande, H.

Pollack, M. A. See Hurd, C. D.

Pollak, E., artificial [resinous] masses, (P.), B., 207. [Colourless hydrazo-aldehyde] artificial masses, (P.), B., 288.

Pollak, F. Seo Abel, E.

Pollak, L., micro-determination of bloodfat, A., 746. See also Erdös, J., and Strebinger, R.

Pollak, R. Seo Mutschin, A. Pollard, $A_{\cdot,i}$ isolation of carotene and sterols from the unsaponifiable matter of cocksfoot, A., 651.

Pollard, A. F. C., polarisation of light and some technical applications, A., 1322.

Pollard, C. B., physiological effects of mineral salts in natural waters, A., 1413.

and Ellis, L. M., determination of tung oil in meal and press cake, B., 379.

See also Adelson, D. E., Forsee, W. T., jun., and Stewart, V. E.

Pollard, E., evidence for a resonance level in the B^{10} nucleus, A., 7, 132.

and Brasefield, C. J., transmutation of phosphorus, sulphur, chlorine, and potassium, and the masses of light atoms, A., 920.

See also Brasefield, C. J., and Margenau, H.

Pollard, $E.\ C.$ See Zeleny, J. Pollard, $H.\ V.$ See Gough, $H.\ J.$

Pollard, N., sound-proof box for electrically driven laboratory centrifuges, A., 46.

Sec also Greenhill, A. W.

Pollitzer, F., and Schuftan, P., condensation of vapours from gas mixtures, (P.), В., 963.

Polljak, V. V. Sce Kitaigorodski, I. I.

Pollock, J. E., Camp, E., and Hicks, W. R., corrosion tests in various refinery services, B., 1044.

Polonovski, Max, and Polonovski, Michel, amine oxides of alkaloids. X. Action of hydrogen peroxide on hydrastinine and hydrohydrastinine. XI. NN'-Dioxide of NN'-dimethylpipcrazine. XII. N- Oxide of sparteine, A., 1131.

Polonovski, Michel, determination of a-amino-acids by the ninhydrin reaction, A., 620. Ammonia content of

cow's milk, A., 749.

peptidemia in anaphylactic shock, A., 356. Gernez, C., and Driessens, J., poly-

and Moreno-Martín, F., use of the ninhydrin reaction in the determination of amino-acids, A., 1006. Differential reactions of human and cow's milk. I. and II., A., 1012, 1139.

Warembourg, H., and Driessens, J., effect of injection of pituitary extracts on blood-sugar and the residual chromic index of plasma, A., 526. Action of folliculin and testicular extract on the residual chromic index, A., 762.

See also Polonovski, Max. Polónyi, P., effect of vitamin-C on causative agent of diphtheria, A., 626.

Polowicz, M. See Borman, J. Polozov, V., hydrogenation of phenol to cyclohexanol, B., 971.

See also Lev, L.

Polson, A., determination of particle weight and shape from diffusion and viscosity data, A., 879.

Sco also Lamm, O.

Poltoratska, O. See Karpatschov, S.

Poltz, H., dispersion of magnetic rotation of liquid mixtures, A., 780.

Polubojarinov, D., refractory lining for

limekilns, B., 837.

Poluektov, N. S., detection of gallium using colour reactions, A., 696. Determination of small amounts of german-

ium, A., 813. Pólya, G., tables of the number of isomerides of the simpler derivatives of cyclic parents, A., 322. Algebraic calculation of the numbers of isomerides of certain organic compounds, A., 1358.

Pólya, J. See Mohler, H.

Pomerene, E. See Dominguez, R.

Pomeroy, R., determination of sulphides in sewage, B., 957.Pomilio, U., industrial evolution of the

chlorine process for cellulose, B., 230.

Pomp, A., and Ruppik, H., influence of the rate of running through in lead patenting on the strength properties of steel wire, B., 1209.

See also Körber, F.

Pompar, K. Sec Glassmann, B. Ponder, E., measurement of red-cell volume: conductivity measurements, A., 620.

and Macleod, J., alleged effect of electrical stimulation on metabolism of

red cell suspensions, A., 221.

Pongratz, A., formation of s-dibromoethylene from s-tetrabromoethane, A., 961.

and Eichler, E., action of sulphuryl chloride on polynuclear, aromatic hydrocarbons. I., A., 977. and Seka, R., Raman effect. XLVII. arômatic

Aromatic polycarboxylie acids, A.,

See also Kohlrausch, K. W. F., and Zinke, A.

Ponomarenko, S., determining small amounts of carbon monoxide under mining conditions, B., 986.

Ponomarev, V. D. See Tananaev, N. A. Pons, C. A., and Belk, W. P., $0.1N_{-}$ hydrochloric acid as diluent for combined leucocyte and hæmoglobin determinations, A., 354.

Ponte, D., preparation of injectable apomorphino hydrochloride solutions, B.,

Pontecorvo, B., properties of slow neutrons, A., 772.

See also Amaldi, E., and Fermi, E.

Pontius, R. B. See Mendelssohn, K.
Pontz, D. F. See Kinney, C. R.
Ponzio, G., dioximes. CIX. and CX.
CXI. Phenyloximinoacetonitrile oxide. CXII. Phenylbenzoyloximinoacetonitrile oxide. CXV. CXVI., A., 740, 1001, 1363, 1383. Poo, L. J. See Addis, T.

Pool, M. L. See Whitmer, C. A. Poole, H. H., and Atkins, W. R. G., standardisation of photo-electric cells for the measurement of energy, A., 1480.

Poole, J. W., refining of hydrocarbons, their derivatives, etc., (P.), B., 680. Poole, W. G., and Rolfe, R. T., training of

electric welders, B., 501.

Poos, F. W. See Hurd-Karrer, A. M. Popa, M. See Manicatide, M.

Pope, O. A., effects of soil types, seasonal conditions, and fertiliser treatments on length and strength of cotton fibre,

B., 36. See also Young, V. A.

Pope, (Sir) W. J., origin of the term "solute," A., 788.

and Whitworth, J. B., optically active di- and tetra-methylspiro-5:5-dihydantoins, A., 1268.

Pope, W. T., coffee, B., 516. Popoff. See Galibourg, J.

Popov, A. A. See Kireev, V. A. Popov, B., photochemical oxidation of

carbon monoxide in the Schumann region, A., 1214. Popov, B. V. See Ismailski, V. A.

Popov, M. A., and Popova, V. A., catalytic hydrolysis of p-dichloro- and p-dibromobenzene by steam, B., 970.

Popov, P. E., examination of products obtained in preparation of ketones by the Friedel-Crafts reaction from acid chlorides and ethers of phenols; synthesis of ketones of the naphthalene series, A.,

Popov, P. G., determination of chlorates, bromates, and iodates by the use of liquid amalgams, A., 577. Application of Wood's alloy as a reducing reagent, A., 577. Preparation of the complex salt, Cu₂HgI₄, A., 809.

Popov, S., catalytic cracking of xylene obtained in the pyrolysis of crude oil,

B., 631.

and Danilova, E., influence of fractionation on the chemical treatment of crude aromatic products of the pyrolysis of petroleum, B, 819.

Popov, V. P. See Demidenko, T. T. Popova, V. A. See Popov, M. A. Popovitsch, A. F., kinetics of oxidation of nitrites with nitric acid, A., 568.

Popp, M., has the moon an influence on plant growth? II., B., 292. Manurial action of magnesium, B., 341.

Contzen, J., and Nieschlag, F., manurial action of magnesium, B., 114.

Popp, W. See Hanna, W. F. Poppe, G., piezometric researches. Mutual solubility of liquids, A., 421.

Poppema, T. J., and Jaeger, F. M., specific heats of solid substances at higher temperatures. XX. Molecular heats of alloys of palladium and antimony in comparison with the sum of the atomic heats of the free elements. XXI. Molecular heats of the compound PtSb, in comparison with the sum of the atomic heats of the free composing elements. XXII. Molecular heats of the supposed binary compounds of copper and palladium, A., 20.

See also Jaeger, F. M. Popper, A. See Effront, I. A. Popper, E. See Spaeu, G. Popper, L. See Ettinger, E.

Poppi, U., and Chiancone, F. M., action of bulbocapnine on isolated frog muscle,

See also Chiancone, F. M.

Poputnikov, F.A., and Taitz, E. M., changes in coking properties of Karaganda coals with increasing layer depth, B., 82.

Pora, E. A., effect of oxygenation of the external medium on composition of blood in Scyllium canicula, A., 354. Chemical and physico-chemical sexual differences in blood of selachians, A. 358. Chemical and physicochemical sexual differences of blood of Labrus bergylta, A., 358. Composition of blood of marine invertebrates and vertebrates, A., 358. Effect of continued passage of current through the external medium on composition of blood in Scyllium canicula, the branchial region being near the cathode, A., 494. Changes in blood-fluid of Scyllium canicula exposed to continuous current, when the branchial region is close to the anode, A., 514. Changes in blood-fluid of the male Scyllium canicula, produced by an opposing continuous electric current in the external medium, A., 514. Changes in blood-fluid of the male Scyllium canicula produced by continuous electric current, A., 514.

See also Drilhon, A.

Porai-Koschitz, A. E., theory of dyeing

animal fibres, B., 491.
Veller, E. A., Sokolova, N. V., and Schukevitsch-Erschova, E. T., theory and practice of the dyeing process, B., 831.

Porai-Koschitz, E. See Valenkof, N.

Porcelain Enamel & Manufacturing Co. of Baltimore. See Turk, R.

Porchet, B., strains of yeast which produce alcoholic fermentation at low temper-

atures, A., 1558.

Pordes, F. See Redlich, O.

Porejko, S. See Smoleński, K.

Poremski, V. See Sannie, C.
Porfirov, P. P., measurement of capacity
of polarised mercury electrodes, A.,
162. Measurement of transient resistance as a method of physicochemical analysis, A., 934.

Porges, H., influence of hæmoglobin on the virulence of tubercle bacilli, A., 1155.

Poritsky, H., and Suits, C. G., sound velocity in gas mixtures at high temperatures, A., 1189.

Porous Rubber Products Trust. See Behrman, A. S.

Porrazzo, F. See Peretti, G.

Porret, D., synthesis of hydrogen sulphide, A., 1209.

Porsch, H. See Sutter, H.

Port, $J_{\cdot \cdot}$, effect of concentration of neutral salts on seedling growth, A., 122.

Porta, C. F., calcium content of the blood of adenoids, A., 1009.

Porta, V. See Colombi, V.

Portals, Ltd. See Knaggs, J.
Porteous, W. K., sewage[-sludge] disposal,

(P.), B., 222.

Porter, A., approximate determination of the atomic wave functions of chromium, A., 1316.

Porter, A. W., surface tension near the critical point, A., 142. Calculation of surface tension from experiment. II. [Capillary] rise in tubes of circular section of all widths. III. Height of the meniscus in wide or narrow tubes when the angle of contact is zero; or the determination of the capillary constant for sessile drops of all sizes. IV., A., 552, 1481.

Porter, B. H., research applications of colloidal graphite, A., 447. Deposits of colloidal graphite, A., 955. Tantalum capacitators, B., 891.

Porter, D. R., and Bisson, C. S., total soluble solids and sugars in water-melons,

B., 1123.

Porter, F., and Atmospheric Nitrogen Corp., hydrocarbon decomposition and catalyst therefor, (P.), B., 971.

Porter, F. R., and Bryant, G. L., one-covercoat enamel finishes, B., 102. See also Bryant, G. L.

Porter, G. H. See Benner, R. C.

Porter, H. D., and Suter, C. M., bromine derivatives of indene and indane, A., 196. Porter, H. H. See Sweek, W. O.

Porter, J. D. See Bancroft, W. D.

Porter, J. L. See Fish, F. H. Porter, T. E. See Compere, E. L.

Portevin, A., constitution and structure of alloys, A., 1061. Metallic materials for heat exchangers, B., 457. Plasticity and rupture of steels at elevated temperatures, B., 742.

and Bastien, P., mechanical resistance of the skin of alumina and its influence on surface tension of the fused metal,

A., 677.

Portevin, A., and Bastien, P., forgeability of various types of light and ultralight alloys, B., 890. Forgeability of various light and ultra-light alloys, B., 996.

and Castro, R., morphology of the inclusions in siderurgical products. III. Chromium alloys and steels, B.,

and Chevenard, P., experimental study of heterogeneity of metals and alloys,

and Cymboliste, M., throwing power of electrolytic baths, B., 152.

and Guillet, L., jun., modulus of elasticity of certain definite intermetallic compounds, A., 1188.

and Lemoine, R., influence of various factors on graphitisation in the solidification of melts, B., 697.

Pretet, E., and De Lacombe, J., forging properties [of metals], B., 599. See also Castro, R.

Portier, H. See De Fleury, R.

Portillo, R., and Tánago, J. G., potentiometric study of complex thiosulphates. I. Strontium silver thiosulphate, A.,

Portman, A. B. See Karpeles, S. L. Portnov, A. I., chemiluminescence of phthalic acid derivatives, A., 984.

Portnov, M. A., [solubility of] nitrates of group II metals in liquid ammonia, A., 1063.

and Seferovitsch, J. E., constants of diand tri-chloroethane, B., 1032.

Portschunov, P. M. See Singalovski, N.S.

Portwood, L. See Heller, V. G.

Porzellanfabrik Kahla, electrie condensers, (P.), B., 940.

Pose, H., measurement of single corpuscular rays in presence of intense y-rays, A., 1315.

Posega, R. See Gangl, J.
Posin, D. Q., Townsend
in nitrogen, A., 1176. coefficients Townsend coefficients and spark discharge, A.,

See also Varney, R. N.

Posnansky. See under Alexander & Posnansky.
Posnjak, E. See Greig, J. W.

Posnova, M. V. See Schulvas-Sorokina, R. D.

Pospechov, D. A., properties of methyl alcohol catalyst copper-zinc oxide-chromic oxide, B., 191.

Possanner von Ehrenthal, B. See Schopper, A.

Posselt, E. See Durbin, H. R.

Possenti, G., glycolysis in the retina, A., 630. Metabolism of pyruvic acid in the retina, A., 631.

Postel, C. See Vandegrift, J. N.

Posternak, T., allomucic acid and a new tetrahydroxyadipic acid, A., 55. Phosphorus of starches, A., 56. Cyclitols. III. Configuration of the active inositols, A., 1376.

Postlethwaite, J. P. See Low Temp. Carbonisation, Ltd.

Postnikov, V. F., laboratory apparatus for ammonia synthesis, A., 47

Bronnikov, A. C., and Kirillov, I. P. interaction of sodium sulphate and pyrites, B., 58.

and Kunin, T. I., conversion of animal refuse into cyanide derivatives, B.,

Postnikov, V. F., Kunin, T. I., and Bronnikov, A. C., preparation of sodium ferrocyanide from calcium cyanamide, B., 59.

Kunin, T. I., and Eremeeva, N. A., preparation of calcium cyanamide by action of carbon monoxide and ammonia on calcium oxide or carbonate, B., 58. Nitrification of calcium carbide, B., 931.

Postnikova, A. N. See Danilova, A. K. Postovski, J. J., and Harlampovich, A. B., presence of thioether sulphur in organically fixed sulphur of coals, B., 964.

Lugovkin, B. P., and Mandrik, G. T. reaction of selenium dioxide with aryl-

hydrazines, A., 1243.
and Tsikin, S. P., active clays as contact catalysts of polymerisation processes. I. Purification of gasoline by Ural active clays, B., 435.

Potanov, I. V. See Goltzschmidt, V. A. Potel, P., physico-chemical properties of wheat and flour, B., 344.

Pothier, F., determination of turgescence of pelt during tanning, B., 33. Determination of quebracho in blended [tannin] extracts, B., 804.

Potjewijd, T. See Beukema-Goudsmit, M. Potolovski, L., and Atalian, A., polymerisation of gaseous olefines with aluminium chloride, B., 627.

Atalian, A., and Buinitzkaja, V., synthetic drying oil from products of pyrolysed crude oil. I., B., 648.

and Buinitzkaja, V., natural gases in Azerbaidshan, A., 1226.

Buinitzkaja, V., and Mamedaliev, J., natural gas from the producing sands of the Apsheron Peninsula, B., 625.

and Gutiria, V., chemical methods for converting synthetic petroleum gases used by the Azneft, B., 483.

Potratz, H. A. See Ekeley, J. B. Potschinok, K. N., analysis of groups I, II, and III oations in presence of phos-

phoric acid, A., 579. See also Lebedeva, A. P.

Potter, A., and Killam, E. T., evaluation of chemical and other methods of sewage treatment, B., 221.

Potter, C., constitution and use of an atomised white oil-pyrethrum fluid to control Plodia interpunctella and Ephestra elutella in warehouses, B., 254.

Potter, H. See Kohler, E. P.
Potter, H. V., plastics in chemical plant
construction, B., 751.

Potter, N. M. See Dawe, A. Potter, T. W. See Bissell, W. T. Potter, V. R., and Elvehiem, C. A., effect of selenium on cellular metabolism; rate of oxygen uptake by living yeast in presence of sodium selenite, A., 381. Method for the study of tissuo oxidations, A., 1017.

See also Franke, K. W. Potter, W. W., liquid filter and mixer, (P.),

B., 49.

Potthoff, K. T., and U.S. Galvanizing & Plating Equipment Corp., apparatus for treating material, (P.), B., 129.
Pottinger, S. R., Leo, C. F., Tolle, C. D.,

and Harrison, R. W., haddock-liver oil and its vitamin content, B., 750.

Potts, G. Seo Standard Oil Development Co. Potts, H. E., and Arroyo, R., [solvents

from] bacterial fermentation of carbohydrates, (P.), B., 1122.

Potts, H. G. See Weitzel, C. F.

Potts, W. M. See Kharasch, M. S. Pough, F. H., morphology of phonacite from two new occurrences [at Klein-Spitzkopjo, South-West Africa, and the Morefield mine, Winterham, Amelia Co., Virginia], A., 307. Bertrandite and epistilbite from Bedford, New York, A.. 958.

Poulenc, P., alkali bromo-salts and bromopyridine derivatives of rhodium, A., 175. Poulsson, L. See Laland, P.

Poultney, S. V., extracts or essences of coffee, chicory, cocoa, etc., (P.), B., 123. Poulton, E. P. See Adams, T. W.

Pound, F. J., budding of cacao, B., 660.

and De Verteuil, J., fruitfulness in cacao. IV. Gross effects of applications of nitrogen, potassium, and phosphorus to the cacao tree, B., 660.

Pound, J. R., oxidation of ferrous sulphate solutions, A., 1471.

and Wilson, A. M., acetylmethylcarbinol, A., 21.

Pounder, F. E. See Masson, I. Poupet, L. See Saint-Jacques, C.

Pourbaix, M., heterogeneous catalysis of gas reactions, A., 941.

Pourbaix, Y., and Denisoff, N., bleod-cholesterol in rabbits painted or injected with benzopyrene, A., 875. See also Maisin, J.

Pourtoy, M. See Kahane, E.

Povorinskaja, S. A. See Minker-Bog-danova, E. T.

Povorinski, J. A. See Minker-Bogdanova, E. T.

Powell, Alan R., Davies, E. C., and Johnson, Matthey & Co., electrodeposition of metals [silver], (P.), B., 1213.

Powell, Alfred R., two-stage Thylox process for hydrogen sulphide romoval [from gas], B., 865.

See also Koppers Co. of Delaware. Powell, C. F., and Mercer, R. L., adsorption of indium and thallium atoms on tungsten oxide, A., 153.

Powell, E. R., and Johns-Manville Corp., light-weight [ceramic] article, (P.), B., 409. A mineral wool product, (P.), B., 988.

Powell, R. C. See Texas Co. Powell, R. R., ozone in breweries, B., 518. Powell, R. W., thermal and electrical conductivities of metals and alloys. II. Heat-resistant alloys from 0° to 800°, A., 789. Thermocouples for psychrometric purposes, A., 814.

and Griffiths, E., evaporation of water from plane and cylindrical surfaces,

B., 1.

Powell, S. G., and Baldwin, M. M., condensation of butan- β -one with aldehydes of the type, CHRR CHO, A., 1486.

Powell, S. T., and Burns, H. S., vacuum

de-aëration combats cold-water corrosion, B., 574.
Powell, T. M. See Salstrom, E. J.

Power-Gas Corporation, Ltd., Rambush, N. E., and Ingman, C., low-temperature carbonisation of briquettes, (P.), B., 228.

Powers, D. H., Stiegler, H. W., and Röhm & Haas Co., process and composition for applying and fixing dyes, (P.), B., 1148.

See also Du Pont de Nemours & Co., E. I. Powers, H. H. See Reis, F.

Powers, P. N. See Mitchell, D. P. Powers, P. O. See Palmer, R. C.

Powers, W. H., and Waclawik, J., pneumatic trough, A., 1355.

Powis, R., and Sterling Engine Co., viscosi-

meter, (P.), B., 578.

Powling, P., ice cream manufacture, B., 953. Powys, E., employment of ferricyanides and ferrocyanides in wine clarification, B., 902.

Pozerski, E., growth of bacteria in media containing previously-heated ovalbumin

as the source of nitrogen, A., 1155.

Pozin, M. E., high-quality chloride of lime, B., 58. Quality of lime [most suitable] for preparation of bleaching powder, B., 190.

Pozna, F., and Migray, E., analysis and separation of the more important anions, A., 695. Analysis of solutions of salts

of heavy metals, A., 695.

Pozzi-Escot, E., mineral waters of Aréquipa, Peru, A., 1086. Colour reaction of hexoses and their polymerides, and its application to colorimetric determination of glucose in blood, A., 1234.

Praetorius, E., influence of sulphur content of solid fuels on heat distribution, B., 353. Prager, C., iron ore deposits and mineral occurrences on the island of Serifos, A., 958.

Prahl, M. A. Seo Du Pont de Nemours & Co., $E.\ I.$

Prahl, W., Mathes, W., and Raschig Ges.m.b.H., F., manufacture of aniline from chlorobenzene and ammonia, (P.), B., 921.

Prandtl, W., separation of zirconium and hafnium, (P.), B., 233.

Prange, G., Bacterium acidi lactici, Hueppe, and its systematic classification on basis of properties, A., 113.

Pranschke, A. See Schwiete, H. E.

Prasad, B. N., mechanical activity of gut muscle under anaërobic conditions, A., 508. Carbohydrate metabolism of gut muscle, A., 511.

Prasad, M., Lakhani, M. P., and Shanker, J., X-ray investigation of the crystals of p-nitrodiphenyl, A., 1450.

and Parmar, M. U., time of setting of

gels, A., 158.

and Shanker, J., X-ray investigation of crystals of benzoin, A., 670.

See also Mehta, S. M., Parmar, M. U., and Robertson, J. M.

Prasad, S. See Singh, B. K.

Prasad, S. P., and Verma, M. N., dielectric constant of a space containing electrons,

Praschutinski, S. D. See Veinberg, G. J. Prát, S., and Komárek, K., copper in soils and plants in copper-rich areas, B., 897.

Prater, A. N. See Young, W. G. Pratesi, P., basic properties of pyrroles, A., 82. Behaviour of pyrroles towards

p-quinones, A., 998. and Celeghini, R., reagent for oxidising

substances, A., 1282. and Zanetta, A., pyrrole-blues. III.,

A., 345. Pratt, C. J., and Devine Manufg. Co., J. P. coking of liquid residuums, (P.), B., 1190. Pratt, D. D., synthetic plastic materials

containing rubber or allied products, (P.), B., 608. Stable mixtures containing rubber and pitch, (P.), B., 752. and Handley, R., incorporation of rubber derivatives with tar products. II., B., 1075.

See also Morgan, (Sir) G. T.

Pratt, F. R., small multiple still, A., 815.

Pratt, F. S., Swain, A. F., and Eldred, D. N., auxiliary gases for increasing the toxicity of hydrocyanic acid gas. II. Citrusinfecting scale insects as indices of toxicity, B., 1117.

Pratt, G. E., concentrated diet in childhood tuberculosis and malnutrition, A., 506.

Pratt, H. A. See Robbins, B. II. Pratt, J. M. M., metallic compositions for bearings, packings, etc., (P.), B., 602. Pratt, J. P. See White, M. R.

Prausnitz, P. H., distribution of gas in liquids, A., 1086.

and Schäfer, II., Jena glass apparatus for the chemical laboratory, A., 1085.

Pray, H. B. See Du Pont do Nemours & Co., E. I.

Pre Cote Corporation. See McConnaughay, K. E.

Pree, L. D. See Dow Chem. Co. Preece, I. A., oxidation, reduction, and brewing, B., 167. Preis, H. See Baur, E.

Preiss, W., determination of nicotine, ammonia, pyridine bases, and tar in tobacco smoke and the efficiency of some filter-tips for the absorption of nicotine, B., 906.

Preiswerk, P., and Halban, II. II. von, jun., radio-elements produced by neutrons. A., 6. Influence of velocity of slow neutrons on their capture by nuclei, A., 264. Relative positions of resonance levels for capture of neutrons by silver and iodine, A., 541. Crosssection measurements with slow neutrons of different velocities, A., 1044. Form of nuclear levels [of rhodium], A., 1046.

See also Halban, H. H. von, jun.

Prelog, V., 4-N-piperazylbenzenesulphonic acid, A., 1126.

and Cerkovnikov, E., γ-tetrahydro-pyranaldehyde, A., 82. dicyclo-[1:2:2]-1-Azaheptane, A., 1388.

and Hahn, V., derivatives of barbituric acid, A., 999.

and Kohlbach, D., N-piperazinyl dyes; azo-dyes. I., A., 1391.

and Piantanida, M., production of methyl esters of difficultly esterified acids, A., 1494.

Premier Waterproof & Rubber Co., Ltd., Ridgway, L. R., and Dearnaley, S. treatment of rubber and similar latices and compositions, and manufacture therefrom of articles of various kinds, (P.), B., 208.

Prendergast, D. T. See Boyce, A. M. Prendergast, L. T. See Jones, G. Preobrashenski, N. A., Poljakova, A. M., and Preobrashenski, V. A., alkaloids obtained from jaborandi leaves; synthesis of pilocarpidine, A., 215. Alkaloids of jaborandi leaves. X. Synthesis and isomerisation of rpilocarpine, A., 1276.

Schtschukina, M. N., and Lapina, R. A., cocaine syntheses from hyoscyamine. I. Preparation of tropinonecarboxylic esters, A., 1131.

Schtschukina, M. N., and Vompe, A. F., acyclic keto-acids, A., 1093.

See also Poljakova, A. M., and Schtschukina, M.N.

Preobrashenski, V. A. See Poljakova, A. M., and Preobrashenski, N. A. Prérez, V., identification of sperm in

medico-legal investigations, A., 228. Prescott, B. See Grabfield, G. B. Prescott, C. H., jun. See Bell Telephone Labs.

Prescott, J. A., nomenclature of soils, B., 339.

Present, R. D., proton-proton forces in anomalous scattering and in nuclear binding, A., 130. Must neutronneutron forces exist in the 3H nucleus? A., 1442.

See also Coolidge, A. S., and James, H. M. Presley, J. T., rubber content of goldenrod (Solidago) leaves affected by light, A., 1034.

Press, E. W. S., boiler and steam-pipe lagging, (P.), B., 80. and Ruddy, W., hygroscopic material

for adsorption and retention of moisture in soil, (P.), B., 517.

Prest, M. R. See Victor, J.

Prest-O-Lite Battery Corporation, reduction of material [lead, etc.] to a fine state of subdivision by attrition, (P.), B., 912. Prestage, A. J., Carpenter, C. C., and

South Metropolitan Gas Co., [mantles for] incandescence gas lighting, (P.), B., 137.

Prestage, E., plate heat-exchange apparatus applicable to milk pasteurisation, (P.), B., 175.

Preston, E., and Turner, W. E. S., volatilisation of lead oxide from lead oxidesilica mixtures, A., 428. The question of the presence of compounds in molten glass, B., 1040.
Turner, W. E. S., and Laithwaite, H.,

volatilisation of sulphate from soda-

lime-silica glasses, B., 1040.

Preston, F. W., fundamental problems

relating to the strength of glassware, B., 989.

Preston, G. D., and Bircumshaw, L. L., effect of heat treatment on structure of gold- and silver-leaf, A., 553. Oxidation of metals. IV. Oxide film on aluminium, A., 1475.

See also Bircumshaw, L.L.

Preston, G. H. See Imperial Chem. Industries.

Preston, J. H. See Piercy, N. A. V. Preston, J. S., selenium rectifier photo-

cell; manufacture, properties, and uses in photometry, B., 1103.

Preston, J. T. E. See Simon-Carves, Ltd.

Preston, W. M., collision-induced emission, A., 262.

Prétet, E. See Portevin, A.

Prettre, M., mechanism of chain reaction in oxygen-hydrogen mixtures, A., 32, 567. Influence of gas adsorbed by the vessel walls on chain reaction of hydrogen-oxygen mixtures, A., 163. Influence of pressure, concentration, and temperature on speed of slow oxidation and ease of spontaneous inflammation of mixtures of oxygen and n-pentane below 300°, A., 684. Significance of surface of glass and of salts in certain homogeneous gas reactions, A., 941. Inhibition by hydrogen of the chain reaction of mixtures of n-pentane and oxygen, A., 1468. Effect of a chemically inert gas on the velocity of the chain reaction in mixtures of n-pentane and oxygen, A., 1468. Laws regulating the initial acceleration of the slow combustion and the delay in spontaneous inflammation of mixtures of n-pentane and oxygen; application to the phenomenon of shock in motors, B., 677. See also Guéron, G.

Přeučil, J. See Lukeš, R.

Preuschen, G. See Rheinwald, H.

Prever, V. S., characteristics of modern light alloys for mechanical castings, B., 936.

Prévost, C., generalised prototropy, A.,

Prévot, J., precision manometer, A., 956. Prey, A. H., and Carborundum Co., rotary bonded abrasive articles, (P.), B., 695. Prianischnikov, A. A., allyl alcohol from

wood, B., 625.

Prianischnikov, N. D., and Frolova, R. A., pectin compounds of the Kendyr plant, B., 617.

C. C., phenanthrene-bromine addition reaction, A., 1498. See also Fieser, L. F.

Price, J., and Griscom-Russell Co., heat exchangers, (P.), B., 672.

Price, J. R. Seo Macbeth, A. K. Price, J. W. See Robinson, H. W. Price, R. H. See Standard Oil Co. Price, S. D. See Gilliland, E. W. Price, W. Armstrong. Corpus

Armstrong, Corpus Christi structural basin postulated from salinity data, A., 448.

Price, Weston A., acid-base balance of diets which produce immunity to dental caries among South Sea Islanders and other primitive races, A., 1407.

Price, W. B., and Scovill Manufg. Co., copper alloy, (P.), B., 239. Non-ferrous alloy, (P.), B., 999.

Price, W. C., absorption spectra of formaldehyde and hydrogen cyanide in the far ultra-violet, A., 405. Far ultraviolet absorption spectra and ionis-ation potentials of H₂O and H₂S, A., 543. Far ultra-violet absorption spectrum of methyl iodide, A., 1048. Far ultra-violet absorption spectra and ionisation potentials of methyl bromide and chloride, A., 1177. Far ultra-violet absorption spectra and ionisation potentials of the alkyl halides. I. [Methyl halides.] II. [Ethyl and higher halides], A., 1317. and Collins, G., far ultra-violet absorption spectrum of oxygen, A., 1.

Price, W. P., and Brown, O. W., electrodeposition of molybdenum from aqueous

solutions, B., 997.
Price, W. V. Seo Wilson, H. L.

Prichotko, A., and Ruhemann, M., absorption spectrum of solid oxygen. II., A., 543.

Pridal, F., improving the Sandera "Konduktometer" [for ash determinations in sugar solutions], B., 423.

Prideaux, E. B. R., diffusion potentials and mobilities of ionised gelatin. II. Neutral and alkaline solutions, A., 430. and Carter, G. E. L., rhythmic turbidity in precipitation of barium sulphate,

A., 1201.

and Coleman, R. N., combination of fatty acids with nitrogen bases. I. Piperidine and lower fatty acids: surface tensions, molecular volumes, and parachors, A., 1449.

and Limmer, B. G., corrosion of cement. II. Effect of carbonic acid; aluminous

cement, B., 499.

and Parkinson, J. R., proton affinities of sparingly soluble bases: benzidine, A., 797.

Priebsch, J. A., statistical derivation of barometer effect on cosmic radiation, A., 919.

Priest, A. E. See Marshall, James.

Priest, I. G., Priest-Lange reflectometer applied to nearly white porcelain enamels, B., 320.

Priester, R., perilla oil, B., 509. Manufacture of oils for the paint and varnish

industry, B., 509.

Priestley, W. J. See Electro Metallurg. Co. Prik, E. M., preparation of unsaturated acids from stearic acid, A., 454,

Prileshaeva, N., energy transfer in collisions of excited thallium atoms with gas molecules, A., 128. Emission of aromatic compounds containing the carbonyl group, A., 1320.

Prill, E. A., and McElvain, S. M., 1-methyl-2-pyridone, A., 481.

See also Woolley, D. W.

Prime, G. E. See Parks, W. G.Prince, A. L. See Blair, A. W.

Prindle, B., general histological examination of normal or mildewed cotton fibres, B., 1034.

See also Jacobson, S.

Pring, J. N. See Burden, W. M.
Pringle, A. M. N., purification of swimming-bath water, B., 430.

Pringle, G. E. See Mohr, C. B. O. Pringsheim, H., and Bondi, J., utilisation of film waste, (P.), B., 1132.

and Ginsburg, S., hydrolysis of the phosphoric ester of starch and glycogen, A., 243.

and Loew, F., dephosphorylation of starch by phosphatase, A., 245.

Pringsheim, P., and Saltmarsh, O. D., fluorescent emission of the mercury line 2537 A. at pressures between 10-3 and 10-1 mm., A., 769.

and Vogels, H., phosphorescence and long-period fluorescence of organic dyes, A., 778. Polarisation of luminescence of dyes adsorbed on colloidal gels, A., 792.

See also Duschinsky, F.

Prins, J. A., and Fonteyne, R., X-ray diffraction in solutions, A., 15.

and Petersen, H., theoretical diffraction patterns corresponding with some simple types of molecular arrangement in liquids, A., 553.

Prinz, H. See Barrenscheen, H. K. Prip, P. See Blom, J.

Pritchard, J. See Corran, R. F. Pritchard, W. N., jun. See Logue, P.

Pritchett & Gold & E. P. S. Co., Ltd., and Hardy, C. R., electric storage cells, (P.), B., 940.

Prittwitz, von. See Ehrenberg, P.

Pritzker, J., and Jungkunz, R., appleand pear-seed oils, A., 125.

Privault, M., K radiation of elements from chromium to copper, A., 399.

Prizemina, Z. P. See Dodonova, E. V. Pró y Castillo, L., colorimetric determination of the $p_{\rm H}$ of some Peruvian waters, A., 1086.

Probst, E. A., and Rauch, A., permanent magnets, (P.), B., 1104.

Proca, A., definition of electromagnetic field in terms of potentials; magnetio moment of the electron, A., 543. Theory of the positron, A., 771. Fundamental equations of elementary particles, A., **774.**

Prochaska, M., influence of harvesting period on value and germinative power

of poppy seeds, B., 116.

Prochoroff, V., preservation or conservation of slaughtered animals, (P.), B., 474.

Prochorov, F. E., and Mamet, A. P., volkonskoite as a hydrogen zeolite, B.,

Prockat, F., technical dust control, B., 765. Physical foundations, problems, and present position of filtration, B., 959.

Procopiu, S., electromotive force of move-

ment of metals in water and their electrokinetic potential, A., 800.

Procter & Gamble Co., bakery products, (P.), B., 122. Wetting and foaming agents, (P.), B., 1141. Sweet baked goods, (P.), B., 1176. Soap cream, (P.), B., 1216. Brushless shaving cream and cosmetic cream, (P.), B., 1216.

See also Clark, C. C., Eckey, E. W., McAllister, W. H., Pape, W., and Richardson, A. S.

Procter & Gamble Laboratories, determination of volatile hydrocarbons in soaps, B., 749.

Proctor, B. E. See Nickerson, J. T. R.

Proctor, J. See Courtaulds, Ltd. Proctor, W. H. W., [cast-iron] alloy, (P.), B., 1045.

Proctor & Schwartz, Inc., conditioning of tobacco, (P.), B., 220.

See also Hurxthal, A. O.

Proffitt, M. J., design and construction of an experimental diffusion battery, B., 71. Prohorov, A. V., ferrite banding in forged and rolled steel, B., 500.

Projekt, K. See Klemensiewicz, Z.

Prokopetz, E. I., action of oleum on decahydronaphthalene, A., 326. Mechanism of hydrogenation of naphthalene at high temperatures and pressures, B.,

and Chadshinov, V. N., hydrogenation

of anthracene, A., 1240. and Pavlenko, A. V., berginisation of crude naphthalene by means of cokeoven gas, B., 51.

Prokopetz, J. A., utilisation of intermediate products of extraction of vanadium from ores, concentrates, and slags for the preparation of vanadium catalysts. I. Utilisation of calcium vanadate, B., 316.

Prokoschev, S. M., and Babitschev, I. A., artificial ripening of tomatoes, B., 568.

Proks, J., and Groh, J., bad (oily, rancid, tallowy, and bitter) taste of milk, B., 471.

Prominski, A. J. See Maas, F. J. Promnitz, O., ball mills for wet grinding

[of pigments], B., 243.

Pronina, M. Z. See Mischtschenko, K. P. Prosad, K., Basu, S., and Ghosh, B. N., photographic reversal with monochromatic and heterogeneous X-rays,

A., 1215. and Bhattacharya, D. K., excitation of Raman spectra of substances with the aid of "optical catalysers," A., 1319. Bhattacharya, D. K., and Chatterjee,

L. M., optical and electrical properties of didymium glass, A., 270.

and Ghosh, B. N., refractive indices of metallic films showing Newton's rings, A., 415.

Proschutinski, S. I. See Gutman, S. M. **Proske**, G., use of polarographic methods in food analysis, B., 905.

See also Winkel, A. Proskurnin, M. See Borissova, T., and Chaltikian, O.

Prosorovskaja, A. A. See Blagovestschenski, A. V.

Prost, M. See Audubert, R.

Prosvirnina, N. See Deschalit, G.

Proszorovski, N. A. See Adadurov, I. E. Protexol Corporation. SceHartman,

Provinciali, C., cerium in the organs and

exercta, A., 225.

Pruckner, F., and Stern, A., optical absorption of porphyrins. IX. Ultraviolet absorption. I., A., 1444. Prudhomme, R. O., flocculation of sera in

distilled water and Henry reaction, A., 231. Reduced glutathione in leprosy, A., 627. Total glutathione of leprosy, A., 1015.

Prundeanu, I. I. See Longinescu, G. G.

Prunell, A., chlorine metabolism in meningitis, A., 366.

Pruschinina, V. See Qvittner, F.

Prutton, C. F., and Smith, A. K., [highpressure | lubricants and lubrication, (P.), B., 970. Lubricants and lubrication, (P.), B., 1139, 1190.

Pryce-Jones, J., fundamental aspects of thixotropy, B., 1217.
Pryde, J., and Williams, R. T., biochemistry

and physiology of glycuronic acid. VI. Excretion of ethercal sulphate by the rabbit following administration of phenylglucosides. VII. Conjugation of borneol in man, A., 887.

Prytherch, J. C. See Hothersall, A. W. Prytz, M., and Nagel, P., amphoteric hydrated oxides, solutions of their hydrolysing salts, and their high-molecular compounds. XXXI. Hydro-lysis and properties of bismuth perchlorate, A., 690.

Przezdziecka, A., metabolism of vitamin-A, A., 528. Determination of vitamin-A,

Przibram, K., yellow rock-salt from Hall in Tirol, A., 307. Native blue rock-salt. IV. Rate of growth and colour, A., 817. Colouring and luminescence of crystals under the influence of Becquerel rays, A., 1321.

Przylecki, S. J. von, intracellular regulation of enzyme reactions with particular reference to the action of amylase, A.,

1023.

Cichocka, J., and Rafalowska, H., chemical groups of proteins which possess affinity for polysaccharides. VI. Rôle of lysine, leucine, phenylalanine, aspartie acid, glutamic acid, asparagine, cystine, and tryptophan. VIII. Hydroxyproline, histidine, and lysine. IX. Rôle of 'CO'NH' linking, A., 90, 619.

Hofer, E., and Frajberger-Grynberg, S., affinities between proteins and fatty acids, fats, and lipins, A., 155.

Kasprzyk, K., and Rafatowska, H., polysaccharoproteins. X. Rôle of individual amino-acid residues, A., 1404.

Pshenichni, A. M., and Shumkov, B. P., decolorisation [of sugar liquors] with norite, B., 248. Cold and hot defecocarbonatation [of sugar juice], B.,

Ptitsyn, B. V. See Grünberg, A. A. Ptitzuin, S., absorption of gases by mercury,

A., 1195.

Ptschelin, A. A., and Ginzburg, E. I., physiochemical phenomena in the interaction of fatty substances with red- and chrome-tanned leather, B., 948.

Ptschelin, V., theory of oxidative dyeing. II. Oxidation of p-phenylenediamine at different $p_{\rm II}$. III. Colloidal properties of oxidative dyeing baths, A., 979. Emeraldin sols. II. Mechanism of stabilising effect of gelatin in the production of sols, A., 1068.

Publicker Research & Development Co. See Ratzkoff, S. M.

Pucci, D. Sce Fester, G. A.

Puchalik, M., polar properties of hydrogenation products of naphthalene, A., 408. Polar properties of 1:4- and 1:2-dihydronaphthalene; polar character of the tetralin molecule, A., 1321.

Puche, F., barium osmichloride, A., 689. Pucher, G. W., Sherman, C. C., and Vickery, H. B., determination of small amounts of citric acid in biological material, A., 535.

and Vickery, H. B., determination of starch in plant tissues, A., 650.

See also Vickery, H. B.

Pucherna, J., monochromatic sodium light in the sugar-factory laboratory for illuminating the polarimeter and refractometer, B., 711.

Puddy, C. A. See Godden, W.

Püngel, W., Scheil, E., and Stenkhoff, R., reactions of iron with molten zinc, B., 324. Püringer, K. See Kuen, F. M.

Püschel, B., angular distribution and number of pairs (C-rays) produced by cosmic ultra-radiation in lead, A., 1315.

Pugatschev, E. E. See Sirkin, Z. N.

Pugh, A. J., and Du Toit, M. S., composition and ionic exchange of ferric silicates and phosphates, A., 1068.

Pugh, E. W., screen analysis for plant control, B., 1.

Pugh, J. D., metallurgical furnace, (P.), B., 646.

Pugh, J. W. See Standard Oil Development Co.

Pugh, M. D., indicating pyrometers in the metal industry, B., 414.

Pugliese, A. See Romoli-Venturi, D. Pugsley, L. I., effect of weaning on the excretion of calcium in the urine of lactating rats, A., 1147.

and Collip, J. B., effect of parathyroid hormone on serum-calcium and calcium excretion of normal and adrenalectomised rats, A., 1158.

Pukall, K. See Koerner, O.

Pukirev, A. G., application of Deniges' reagent to determination of tert.-butyl alcohol in isopropyl alcohol, B., 181.

Pulfrey, W., geology of an area in the Kavirondo District, Kenya Colony, A.,

Pulkrabek, J. See Simek, B. G.

Pullen, N. D., anodic treatment for the production of aluminium reflectors, B., 997.

See also Gwyer, A. G. C.

Pullen, R. S., and Pullenlite Co., striking material for matches, (P.), B., 349. Pullenlite Co. See Pullen, R. S.

Pulley, G. N., charts for determining $p_{\rm H}$ values when using quinhydrone and hydrogen electrodes and saturated calomel cell, A., 814. Solubility of naringin in water, A., 1333.

See also Loesecke, H. W. von. Pully, O. O. See Martyn, D. F.

Pulver, H., application of Kaminski's method for determining calcium in fertilisers, B., 210.

See also Truninger, E.

Pulver, R. See Ruzicka, L.

Pummerer, R., rubber ozonides and the existence of primary ozonides, B.,

and Buchta, E., addition of aromatic hydrocarbons to maleic anhydride and green radicals from diaryldihydrofuranones, A., 845. Synthesis of 2:5-dibenzoylquinol; 2:5-dibenzoylbenzoquinone, A., 855.

Matthäus, G., and Socias-Viñals, W. [with Braun, F.], detection of methylglyoxal and fission of caoutchouc by

ozone, A., 317.
Pummill, E. T., and Socony-Vacuum Oil Co., apparatus for oil-treating systems, (P.), B., 962. Contacting of liquids, (P.), B., 962.

Pumper, E. J., velocity of ultrasonic waves at low pressures, A., 555.

Pungs, W. See Luther, M.

Puntambekar, S. V., Actinodaphne and Litsæa fats as raw materials for new detergent, B., 28.

Purcell, E. M. See Howe, J. D., and

Lark-Horovitz, K. Purcell, R. H. See Newell, W. C., and Pearson, T. G.

Purdie, D. See Mann, F. G.

Purdue Research Foundation. See Hass, H. B.

Purdy, W. C. See Smith, R. S.

Pure Calcium Products Co. See Church, J. W.

Pure Oil Co. See Chewning, J. W., and Osterstrom, R. C.

Purgotti, E., characteristics of laminated "phenolics" for the electrical industry, B., 559.

Puri, A. N., determination of exchangeable calcium and other bases in noncalcareous soils, B., 114. Relation between exchangeable sodium and crop yield in Punjab soils, and a new method of characterising alkali soils, B., 513. Use of the antimony electrode for determining soil reaction, B., 562. Determining exchangeable calcium and other cations in soil, B., 1010.

and Anand, B., reclamation of alkali soils by electrodialysis, B., 1010.

and Asghar, A. G., determination of available phosphates in soils by CO₂ extraction, B., 1010.

and Vanshylla, A. S., determination of limo status and lime requirement of soils based on reaction with calcium carbonates, B., 805.

See also Anand, B., and Husain, M. A. Purjesz, B., and Lajos, S., intermediary fat and carbohydrate metabolism of sarcomatous rats, A., 1539.

Purkayastha, S. See Sharma, N. L. Purkis, C. H., and Thompson, Harold W., photochemistry of nitrates, nitrites, and nitro-compounds. II., A., 1178. See also Thompson, Harold W.

Purr, A., cathepsin and arginase in a melanosarcoma of the horse, A., 520. Enzymes in relation to cancer, A., 1554.

Purse, J. H. See Carbido & Carbon Chemicals Corp.

Purser, J. See Atkins, W. R. G.

Purucker, G. See Ireks A.-G.

Purves, C. B., determination of fermentable carbohydrates in rabbit liver, A., 96. Isolation of a reducing dextrin, A., 96.

Purvis, O. N. See Gregory, F. G.

Pushin, N. A., and Zivadinović, R. D., reaction of carbonyl chloride with hexamethylenetetramine, A., 689. Basic gallium nitrate, A., 1217.

Pusireva, V. P. See Kozeschkov, K. A. Pustovalov, L. V., occurrence of iron ores and phosphates near Suintul, A., 184.

Putilova, I. N., sorption phenomena and chemical processes. VII. Permutoid reactions, A., 26.

See also Liepatov, S. M. Putnam, G. I., Worthen, C. T., and McLoughlin Textile Corp., dyeing of rayon knit piece goods [with vat dyes], (P.), B., 929.

Putnam, G. L. See Robinson, R. J.

Putney, L. K. See Devaney, G. M. Putochin, N. I., action of sodium methoxide on ethyl isatin-N-acctate, A., 211.

Putschinski, L. I., and Gluhenki, T. T., variations in blood-cholesterol in man

and in animals, A., 357.

Putschkov, P. V., desulphurising petroleum fractions from Ischimbajevo crude by hydrogen under pressure, B., 483. Analysis of hydrogenation gases; determination of the weight of saturated hydrocarbons, B., 822.

Putt, E. B., flavouring and colouring extract [for beverages, etc.], (P.), B., 667. Putterlik, J. See under Putterlik a Spol

Komanditni Spoleenost, J.

Putterlik a Spol Komanditni Spolecnost, J., manufacture of closed, hollow bodies [bricks] from plastic materials, (P.), B., 836.

Putzikin, G. G. See Botschvar, A. A. Pntzillo, V. Sce Stadnikov, G. L.

Puxeddu, E., polymeric phenols having a tetramethylene structure, A., 980.

Puyal, J., and Kutz, A., simplification of micro-methods. I. Micro-determination of non-protein-nitrogen of blood, A., 1400.

Puymbroeck, J. V., textile articles, (P.),

Puzenkin, E. S. Sce Dain, B. J.

Puzevskaja, S. M., analysis of anions, A., 41. Pycock, E. R. See Dawson, H. M.

Pyenson, L., and MacLeod, G. F., toxic effects of naphthalene on Bruchus obtectus and Tenebrio molitor in various stages of development, B., 853.

Pyhälä, E., importance of sulphate soaps as raw material in large-scale [paper] production, B., 14. Tall-oil soaps for use in the soap industry, B., 557.

Pyke, M., rapid determination of carotene, xanthophyll, and chlorophyll in artificially-dried grass meals, B., 617.

Pylkkänen, M. See Sihvonen, V.
Pyman, F. L. See Boots Pure Drug Co.,
and King, F. E.

Pyrene Co., Ltd., foam such as is used for fire-extinguishing purposes, (P.),

and Bedford, H. E., dust [collector and]

filter, (P.), B., 817.

and King, E. C. F., production of protective or paint-holding coatings on aluminium or aluminium alloys, (P.), B., 554.

Pyriki, C., nicotine in cigarette smoke. V., B., 298. Separation of nicotine from the residues of steam-distillation of tobacco. II. and III., B., 429. Valuation of fermented tobaccos from the chemical viewpoint, B., 620.

and Dittmar, H., tobacco products. I.,

B., 123.

Pyroxylin Products, Inc. See Wilson, W. C.

Pyzel, D. See Shell Development Co.

Pyzel, E. See Shell Development Co. Pyzel, F. M. See Shell Development Co., and Universal Oil Products Co. Pyzel, R. Sec Universal Oil Products Co.

Quackenbush, F. W., Peterson, W. H., and Steenbock, H., nutritive value of mushrooms, B., 346.

Quadrat, O., and Jiriste, J., composition of insoluble residues formed by dissolving aluminium-copper-nickel alloys in potash, B., 1211.

Quagliariello, G., and Scoz, G., existence of a lipase in fatty tissue, A., 1024.

Quam, G. N., and Klein, A., lead pipes as a source of lead in drinking water, B.,

Quandt, H. L., Horak, J. J., and Quandt Chem. Co., core compound, (P.), B., 358. Core oil compound, (P.), B., 358. Quandt Chemical Co. See Quandt, H. L.

Quarrell, A. G. See Finch, G. I.
Quaschning, C. G., Hundertmark, H., and
"Deback" Deuts. Backmittel G.m.b.H., baking agent, (P.), B., 811.

Quasi-Arc Co., Ltd., and Strohmenger, A. P., electrodes or welding rods for electric arc welding, (P.), B., 1163.

Quastel, J. H., Tennenbaum, M., and Wheatley, A. H. M., choline ester formation in, and choline esterase activities of, tissues in vitro, A., 1410.

and Wheatley, A. H. M., fat metabolism. IV. Acetoacetic acid breakdown in the kidney, A., 235.

and Yates, E. D., action of dyes on enzymes; union between yeast invertase and sucrose, A., 1151.

Quatram, F. See Stackelberg, M. von. Quattlebaum, W. M., jun. See Corwin, A. H.

Qudrat-i-Khuda, M., and Mukherji, A., keto-lactol tautomerism. V. Influence of methylcyclohexane rings on tautomerism of δ -ketonic acids, A., 843.

Quelet, R., chloro-alkylation of anisole; synthesis of vinylanisole, A., 719.

and Allard, J., synthesis of p-methoxybenzyl alcohol, A., 1504.

and Anglade, M., synthesis of 2:4-dihydroxymethylanisole and of some derivatives, A., 1247.

and Germain, (Mlle.) Y., synthesis of 3-nitro-4-methoxybenzyl alcohol and of its alkyl ethers, A., \$40.

Quendiac, M., solubility of tannins of chestnut wood, A., 1037.

Quendt, B., slackening of animal hides and skins and solutions therefor, (P.), B., 707. Queneau, A. L. J., pressure-moulded refractory articles [e.g., zinc-distillation retorts], (P.), B., 234. Elimination of contaminating metals and metalloids from [zinc sulphide] ores,

(P.), B., 796. See also Associated Metals & Minerals Corp.

Querido, A., vitamin-D requirements in relation to calcium and phosphorus content of the diet, A., 391.

Querner, F. R. von, microscopical detection of vitamin-A in animal fissues; paraplasmatic liver-cell inclusions. III., A., 1303.

Quetel, R., nitrogen content of the lily-ofthe-valley during forcing, A., 1165.

Queuille, S. See Randoin, L. Quevauviller, A. Sec Régnier, J. Quibell, T. H. See Karrer, P

Quibilan, G. A. See Roduta, F. L. Quibilan, G. Q., and Santos, A. C., ambaline, a new alkaloid from Pycnarrhena manillensis, Vidal, A., 1527.

Quick, A. J., test for hippuric acid in diseases of liver, A., 752. Action of heparin and its relation to thromboplastin, A., 1402. Properties of thromboplastin (aqueous tissue extracts), A., 1402. Relation between complement and prothrombin, A., 1531.

Quickfit & Quartz, Ltd., and Smith, I. C. P., fractionating or similar columns, (P.),

B., 1072.

Quiggin, D. A., evaporators, (P.), B., 1073. Quiggle, D., sodium hyposulphite solutions for absorption of oxygen, A., 1351. See also Fenske, M. R., and Tongberg,

C. O.Quigley, J. P., chemical factors governing gastric motility, A., 1552.

Quigley Co., Inc. See Shillaber, C. P.

Quilico, A., action of nitric acid on unsaturated compounds. XII. Structure of products of the reaction of nitric acid with citraconio acid, A., 617.

and Fusco, R., action of nitric acid on unsaturated compounds. XIII.—XV. Products of the reaction of nitric acid with citraconic acid, A., 1129.

and Justoni, R., carbonitrosohydrazines. IV. Azohydroxamic acids [and hydro-

chloric acid], A., 601.

Quill, L. L., ball mill, A., 306. Quimby, S. L. See Balamuth, L., and Siegel, S.

Quin, J. I., Rimington, C., and Roets, G. C. S., photosensitisation of animals in S. Africa. VIII. Biological formation of phylloerythrin in digestive tracts of various domesticated animals, A., 1290. Quin, P. J. See Cruess, W. V.

Quinet, (Mlle.) M. L., combination of magnesium chloride and magnesium

methoxide, A., 1474.

Quinney, H., and Lean, R. J., mechanical testing machines for making impact tests on materials, (P.), B., 722.

Quint, F. See Dilthey, W., and I. G. Farbenind.

Quintero, L. See Guzmán, J., and Rius, A. Quintero Guerra, T. See Garcia González, F. Quintin, (Mlle.) M., mechanism of hydrolysis in solutions of salts of heavy metals, A., 172. Activity coefficient of ions, A., 289. Theory of strong electrolytes and activity of cadmium chloride, A., 564. Activity coefficients of ions, A., 1069.

Quisling, S., topical anæsthetic, (P.), B., 1235.

Quitmann, E., determination of traces of gases in air with Cauer's absorption tubes, A., 177.

Qnitzow, H. W., diabase-porphyrite and glaucophane rocks in the North Calabrian trias, A., 584.

Quodling, F. M. See Mellor, D. P. Qureshi, M. See Ranganadham, S. P.

Qvarfort, S., correlation between coal analysis and semiscale and industrial carbonisation, B., 771.

Qviller, O., machine for removing water from wood pulp, cellulose, etc., (P.), B., Qvist, IV., and Salo, A., nuclear-substituted derivatives of isopropylbenzene, A., 1100.

Quittner, F., true conductivity and back e.m.f. in layered dielectrics, A., 548. [Electrical] discharge through oil-

soaked paper, B., 926.
and Pruschinina, V., conductivity of solid dielectrics. I. Electrolysis of varnish films, B., 65.

Raadsveld, C. W., nitro- and bromonitroderivatives of p-aminoacetophenone, A., 74. Derivatives of p-aminoacetophenone, A., 75. Toxic vapours of various hydrocarbons and alcohols. I. and II., A., 1023; B., 573.

Raalte, M. H. van, influence of glucose on auxin production by the root-tip of

Vicia fâba, A., 908.

Rabald, E., working-material problems of to-day in [German] chemical industry, B., 2. Replacement model; material for chemical apparatus; DIN E7100, B., 815. Hindering of corrosion by precautions with corroding medium, B., 841, 1210.

Sce also Johannessohn, F.

Rabaté, J., determination of hydroxyl in earbohydrates by acetylation in pyridine, A., 1491. Glucosides of the Salicaceæ, A., 1571. Biochemical study of Salicaceæ, A., 1571.

and Dussy, J. heterosides of fruits of Sophora japonica, L, A., 768.
See also Collot, A. M.

Rabbeno, A., and Rappeport-Lewey, S., methæmoglobinising action in vivo of sodium nitrite, A., 1007.

Rabezzana, H., Duffendack, O. S., and Gen. Motors Corp., [nickel] alloy [for electron emission], (P.), B., 106.

Rabi, I. I., space quantisation, A., 404. Nuclear spin in isotopic mixtures, A., 1175. Determination of sign of nuclear magnetic moments by the method of atomic beams, A., 1175.

See also Breit, G., Fox, M., Kellogg, J. M. B., and Millman, S.

Rabin, A. Sec Herrin, R. C.

Rabinerson, A., and Aristova, Z., structure in hydrosols of aluminium oxide and lyotropic effects of ions, A., 157.

and Kniasev, V., influence of adsorbed cations on structure formation in aluminosilicate suspensions, A., 1461. and Kremnev, L., classification of emul-

sions, A., 1460.

See also Fuchs, G.

Rabinovitsch, A. J., optical sensitisation of photochemical reactions in solids, A., 1215. Hydrolysis of fats in presence of activated charcoal, B., 27.

Vassiliev, P. S., and Gatovskaja, T., Donnan effect in ultrafiltration of

colloidal solutions, A., 27. See also ∇ assiliev, P.S.

Rabinovitsch, E., kinetics of halogen atom recombination, and in particular the significance of convection, A., 1214.

and Wood, W. C., extinction coefficients of iodine and other halogens, A., 398. Properties of illuminated iodine solutions. I. Photochemical dissociation of iodine molecules in II. Negative absorption solution. effect in benzene and other solvents, A., 437, 789.

Rabinovitsch, E., and Wood, W. C., heterogeneous recombination and diffusion coefficients of halogen atoms, A., Ionic exchange and sorption of gases by chabasite, A., 792. Kinetics of recombination of bromine atoms. II., A., 801. Dissociation of excited iodine molecules, A., 947. Collision mechanism and primary photochemical process in solutions, A., 1185. Kinetics of recombination of iodine atoms, A., 1348.

Rabinovitsch, I. M. See Ross, A.Rabinovitsch, L. M. See Tananaev, N. A. Rabinovitsch, O. B. See Mintz, I. B. Rabinovitz-Sereni, D., toxicity of mag-

nesium towards higher plants, A., 122.

Rabinowicz, M. See Giroud, A.

Rabl, M., calculation of capacity of lead accumulators for partial discharge between any required voltage limits; change of capacity curves with temper-

ature, B., 417.
Rabold, C. N., characteristics of maize starch and gums as related to printers

thickeners, B., 662.

Raby, E. C. See Bartholomew, E. T. Racah, G., quadratic Zeeman effect, A., 134.

Racaño, A. See Guzmán, J. Race, E. See Masson, I. Racicot, P. A. See Ferguson, C. S.

Rackmann, K., relationships between plant growth, soil, and nutrient ratios of manures. II., III., and IV., B., 292, 898, 1060.

Raczkowski, H. E. Z., and Hillkowitz, W., production of syngenite, and production of potassium sulphate from potassium

chloride, (P.), B., 318.
Radcliffe, R. S. See Booge, J. E.
Radcliffe, T. D. See Standard Oil Co. of California.

Radeloff, H., detection of bleaching and baking-quality improving agents in flour, B., 40. Rader, D. S. See Heyer, B. S.

Rader, L. F., jun., physical properties of asphaltic mixtures at low temperatures, B., 483. Correlation of low-temperature tests with resistance to cracking of sheet asphalt pavements, B., 886. and Hill, W. L., occurrence of selenium

in natural phosphates, superphosphates, and phosphoric acid, B., 493.

See also Jacob, K. D., and Reynolds, D, S.

Radestock, H. Sec Zellstofffabr. Waldhof. Radial Hydrocarbon Processes, Inc. Sec McRae, R.J.

Radiant Heating, Ltd., and Docking, A., reduction of [nickel] ores or oxides, (P.), B., 843.

Radio-Akt.-Ges. D. S. Loewe, cathode-ray tube, (P.), B., 283. Electron-discharge tubes, (P.), B., 941.

Radio Corporation of America, colour

photography, (P.), B., 1181.
See also Allen, V. O., Billings, H. P.,
Bloomenthal, S., Eddison, C., Emmens, H., Essig, S. F., Geel, W. C. van, Holst, Gilles, Klinkert, L., Shillenn, P. P., Umbreit, S., and Wein, S.

Radischtschev, V. P., double decomposition in absence of a solvent. XXVIII., XXIX., and XXX., A., 31, 1465.

Radium-Chemie Akt.-Ges., loading of containers with solid radioactive materials, (P.), B., 59. Radley, J. A. See Imperial Chem.

Industries.

Radmanche, R., effect of ultra-violet light on electrical conductivity of quartz, A., 147.

Radomski, P. A. See Plotnikov, V. A. Rados, M. See Zemplén, G.

Radsch, R. M., manufacture of kraft pulp and paper, B., 830. Radtschenko, O. A. See Orlov, N. A.

Radu, I. F., neutralising acidity of podsol soils with lime, B., 610. Course of intake of nitrogen, phosphate, potassium, calcium, and magnesium by lucerne, B., 1011.

Rădulesco, V. See Ionescu, C. N.

Rădulescu, D., group resonators. XXII. General law of frequencies of the fine structure bands, A., 920.

and Tilenschi, S., determination of vapour pressure, A., 930. Validity of Mecklenburg's formula; dynamics of adsorption, A., 933.

Raduner & Co., Akt.-Ges., fabrics resistant to shrinking, (P.), B., 788.

Treatment of textile fabrics, (P.), B.,

Radzinsky, H. See Hondrich, M. W.

Raeder, M. G., and Nilsen, K. W., poisoning phenomena and hydrogen over-voltage, A., 1207.

Rähesoo, K., determination of alkaloids in medicinal drugs and galenical preparations, B., 219.

Raether, II., electrical breakdown in the cloud chamber, A., 1181.

See also Flegler, E.

Rafalowska, H. See Przylecki, S. J. von. Raff, R., formation and structure of synthetic resins, B., 1056.

and Abrahamezik, E., action of allylamine and novalgin on prepared animal membranes (goldbeater's skins), A., 793.

See also Breitenbach, J. W., Dostal, H., and Mark, H.

Raffay, B. von. See Fridli, R.

Raffold Process Corporation. See Rafton, H. R.

Raffy, A., and Guignon, G., effects of suppression of the mesotergal organ on gaseous exchange of Lepidoptera, A., 220.

Sce also Dhéré, C., and Fontaine, M. Rafton, H. R., and Raffold Process Corp., [sized-paper] composition and its manufacture, (P.), B., 270. Paper manufacture, (P.), B., 1147.

and Rafton Eng. Corp., separation and washing of materials, (P.), B., 176.

Rafton Engineering Corporation. Rafton, H. R.

Ragatz, R. A. See Williams, G. C. Ragg, M., antifouling paints, etc., B., 29.

Ragno, A. See Talenti, M. Ragosin, I. I. See Minkevitisch, I. E. Ragsdale, E. C., and Staley Manuig. Co.,

A. E., removal of foots from crude oil, (P.), B., 379.

Rahlfs, P., cubic high-temperature modifications of cuprous and silver sulphides, selenides, and tellurides, A., 413. See also Laves, F.

Rahn, G. A. See Mattimore, H. S.

Rahn, O., variations in living matter controlled by chemical laws, A., 506. Chemistry of cell growth. I. and II., A.,

Raichinstein, Z., oxidation-reduction indicators. I. New indicators for bromate titration of tin and antimony, A., 444.

Raiehinstein, Z., and Korobov, N., new indicators for direct titration

tungstate with lead nitrate, A., 580. Raiford, L. C., and Hazlet, S. E., amides of benzene-sulphinic [and -sulphonic] acid, A., 197.

and Silker, R. E., behaviour of bromine derivatives of guaiacol towards nitrat-

ing agents, A., 67.
and Wells, E. H., iodine substitution products of vanillin and their derivatives, A., 332.

and Zimmermann, J. C., derivatives of

diphenyl ether, A., 200.

Raikov, P. N., volatility of red phosphorus, A., 1191.

Rainer, E. T., and Gerke, R. H., fatigueeracking test for [rubber] tyre-tread compounds; laws of fatigue, B.,

Raisch, W., and Municipal Sanitary Service Corp., activated-sludge sewage treatment, (P.), B., 398.

Raiser, A. S. See Zelikman, I. F.

Raisin, C. G. Sec Angus, W. R., and Ingold, C. K.

Raistrick, H., Robinson, Robert, and White, D. E., biochemistry of microorganisms. L. Ravenelin (1:4:8-trihydroxy-3-methylxanthone), a new metabolic product of Helminthosporium ravenelii, Curtis, and of H. turcicum,

Passerini, A., 1121. and Smith, G., biochemistry of microorganisms. LI. Metabolic products of Aspergillus terrcus, Thom. II. Two new chlorine-containing mould metabolic products, geodin and erdin, A.,

1116.

See also Anderson, C. G., Birkinshaw, J. H., and Haworth, W. N.

Raiziss, G. W., Kremens, A. I., and Abbott Labs., purification of neoarsphenamine

[neosalvarsan], (P.), B., 1235. Rajagopalan, R. Sec Bhaskaran, T. R.,

and Iyer, C. R. H.

Rajakovics, E. von, influence of temperature on impact-resistance of cast iron, B., 597.

Rajamanikam, N. See Dey, B. B.

Rajevski, V., position of the lowest energy term of the deuteron, A., 541.

Rake, G. See Scherp, H. W.

Rakestraw, N. W., and Mahneke, H. E., boron content of sea-water of the North Atlantic Coast, A., 48. Mahneke, H. E., and Beach, E. F.,

determination of iron in sea-water, A., 580.

Rakieten, N., basal heat production of the rhesus monkey (Macaca mulatta), A., 506.

See also Himwich, H. E.

Rakitin, J. V., hastening ripening of melons, B., 568. Effect of temporary anaërobiosis on ripening of fruit, B., 713. Controlling ripening Japanese persimmon, B., 1231.

Bulatov, F., and Stoljarov, A., action of different factors promoting ripening

of fruit, B., 713.

Rakovski, A. V., and Nikitina, E. A., heteropoly-compounds. V. Solubility of certain heteropoly-compounds, A., 932.

Tarasenkov, D. N., and Komandin, A. V., influence of a solid phase on f.p. of water and of dilute aqueous solutions. I. Quartz sand-water. II. Starchwater, A., 156, 424.

Rakovski, E. V., and Kruilov, V. D., oxidation of peat, B., 914.

Rakower, E., absorption and fluorescence spectra of a dicinnamoylmethane derivative and the carrier of this fluorescence, A., 548.

Rakshit, H., continuous absorption and photo-electric effect, A., 923.

Rakshit, J. N., importance of the correction to be used in determination of morphine content of opium, in applying the procedure of the British Pharmacopæia,

1932, B., 44.
Rakutz, S. Z., agglomeration effect in mordant paints, and its relation to dullness or lustre or lacquer coatings,

B., 943.

Rall, H. T., and Smith, H. M., physical and chemical properties of petroleum fractions. I. Behaviour in difute benzene solutions, B., 1076,

Rallis, J., acidification in stored oil cakes; determining approximately the age of a stored oil cake, B., 379.

Ralph, D. E. See Thomas, S. B.
Ralph, S. J., and Aluminium Plant &
Vessel Co., formation of electrodes for electrolysis of liquids, (P.), B., 939.

Inglis, G. O., and Aluminium Plant & Vessel Co., construction of bubblercolumn units, (P.), B., 722.

Ralston, A. W., and Armour & Co., pyrolytic treatment of higher fatty acid substances, (P.), B., 89. Fatty acid cracking in presence of aromatic

amines, (P.), B., 89. and Bauer, S. T., preparation of hydroxyacids [dihydroxystearic acid], A., 1092. Ralston, H. C. See Williams, T. D.

Ralston, O. C., Baum, K. M., and Arizona Minerals Corp., base-exchange and similar materials, (P.), B., 834.

Fowler, M. G., and Kuzell, C. R., recovering zinc from copper smelter products, B., 105.
King, C. R., and Phelps Dodge Corp.,

froth-flotation process, (P.), B., 998.

Miller, F. H., and United Verde Copper Co., [zinc sulphate] solution purification, (P.), B., 274.

and United Verde Copper Co., [flotation] concentration of minerals, (P.), B., 646.

See also Barker, L. M.

Ram, A., photosynthesis of formaldehyde nascent carbon dioxide" in vitro: importance of respiration in photosynthesis, A., 1433.

Ram, Sant, measurement of c/m with a triode valve, A., 660.

Ram, Sundar. See Bose, P. K. Ramage, G. R., and Simonsen, J. L., caryophyllenes. III. and IV., A., 80, 994.

See also Phillips, E. O.

Ramage, H., biological distribution of metals, A., 258. Analysis of tissues for metallic content, A., 1532.

and Sheldon, J. H., hæmochromatosis. I. Iron and sulphur content of the tissues. II. Results of spectrographic examination with reference to copper and calcium, A., 100.

Ramage, W. D., and Great Western Electro-Chem. Co., chloropicrin, (P.), B., 441. Ramajja, K. S., and Chaiman, S., lowering

pour point of lubricating oils, B., 356. Raman, (Sir) C. V., and Nath, N. S. N., diffraction of light by high-frequency

sound waves. I.—IV., A., 148, 555.

Ramanadham, M., optic moments of organic molecules in relation to crystalline and magnetic birefringence, A., 551. Refractivity and magnetic birefringence of liquid mixtures, A., 931.

Ramanathan, S. See Child, R. Ramanujum, S. See Ramiah, K.

Ramart-Lucas, (Mme.) P., absorption and deformation of valency angles, A., 662. Spectrochemistry of organic nitrogen compounds, A., 662.

and Biquard, (Mlle.) D., influence of cyclisation on "colour" of molecules; absorption of diphenyleneazone and its mono- and di-oxides, A., 601. Changes of " colour "which accompany conversion of amino-acids and amides into lactams in the benzene series, A., 734.

and Cowenbergh, M. van, true effect of cyclisation on "colour" of molecules; ultra-violet absorption of o-methoxyacetophenone, \beta-coumaranone, and

y-chromanone, A., 732.

and Hoch, J., structure and absorption spectra of benzcycloalkanoneoximes, A., 471. Influence of cyclisation on "colour" of molecules; ultra-violet absorption of derivatives of diphenylmethane and fluorene, A., 726. Absorption in the ultra-violet and structure of anils and a-ethylenic amines, A., 1242.

and Montagne, (Mlle.) M., absorption [spectra] of anils of aliphatic ketones,

A., 1242.
and Vantu, V., spectrochemistry of nitrogenous organic compounds; structure and absorption of benzoxazole, benzoxazolone, and phenmorpholones, A., 1000.

Ramaswamy, K. L., dielectric coefficients of volatile compounds of fluorine and boron; CF₄, NF₃, CHF₃, (CF₃N)₂, B₂H₆, and B₃N₃H₆, A., 139. Re-fractive indices and dispersions of volatile compounds of fluorine and boron; carbon tetrafluoride, nitrogen trifluoride, fluoroform (CF₃N)₂, boron hexahydride, and B₃N₃H₆, A., 271. Dielectric coefficients of gases and vapours, A., 1182.

See also Watson, H. E.

Ramaswamy, S., X-ray analysis of structure of iridescent shells. II. Haliotida, A., 144.

Rambaud, R., comparison of a group of isomeric ethylenic chlorides (allylcrotonic isomerism) amongst themselves and with the corresponding bromides, A., 705.

Ramberg, E., and Richtmyer, F. K., calculation of the X-ray energy level widths of Au (79), A., 1311. Auger effect for Au (79) and the origin of certain L-satellites in X-ray spectra, A., 1312.

Ramberg, L., reaction vessels of variable

capacity, A., 815.
Ramberg, W. See Petrenko, S. N.

Rambush, N. E. See Power-Gas Corp.

Ramdohr, P., occurrence and properties of herzenbergite, A., 700. Tin occurrence in marble at Arandis, S.W. Africa, A., 1087.

Ramén, T. See Aktieb. Raméns Patenter. Ramesohl & Schmidt Akt.-Ges., separator with frothless discharge of the centrifuged substance, (P.), B., 176.

Ramet Corporation of America. See Balke, C. W.

Ramiah, K., and Ramamijum, S., chlorophyll deficiencies in rice, A., 256.

Ramirez, E., and Rivero, M. D., action of testicular hormone on development of the hen's comb, A., 644.

Ramirez, R. L. See Roffo, A. H. Ramm, S., and Peresadin, V., synthetic tans from peat tars, B., 849.

Rammler, E. See Rosin, P. O.

Ramnoux, (Mlle.) C., and Martinet, J., concept of [chemical] element, A., 660.

Ramon, G., favourable effect of lipins on immunising action of antigens, A., 498. Staphylococcal toxin and anatoxin, A., 525.

Berthelot, A., and Amoureux, G., medium for production of staphylococcal toxins, A., 898.

and Richou, R., determination of staphylococcal toxin, A., 525.

Ramontianu, E. See Tanasescu, I. Ramotowski, E. See Swientoslawski, W. Ramsay, H. T. See Gen. Electric Co.

Ramsbottom, J., uses of fungi, B., 1013. Ramsburg, C. J. See Koppers Co. of

Delaware. Ramsdell, G. A., Johnson, W. T., jun., and Evans, F. R., resazurin as an indicator of the sanitary condition

of milk, B., 664. See also Frazier, W. C.

Ramsey, D. M., and Exolon Co., reclaiming

aluminous oxide grains, etc., B., 276. Ramsey, E. C., and Mack, P. B., effect of dry-cleaning and of water-washing on strength of unweighted and of tinweighted silks. V. (1) Effect of dry-cleaning, stains, stain-removal agents, and pressing, B., 828.

Ramsey, J. B., and Heldman, M. J., kinetics of the tervalent vanadium-

iodine reaction, A., 1073.

Ramsey, R. J. See Rnehe, H. A.
Ramsey, W. E. See Danforth, W. E.,
Montgomery, C. G., and Swann, W. F. G.

Ramstetter, H., [use of] German wood as constructional material in the chemical industry, B., 21. Preservation of wood, B., 320.

Ramult, M., embryonic and larval development in Sacculina (Rhizocephala) in media of changed osmotic condition, A.,

Raneke-Madsen, E. See Jensen, K. A. Rand, C., vitamin-A and carotenoids in the frog, A., 118.

Randall, A. See Andrews, James C.

Randall, H. C. F., problems in the paint industry, B., 893.

Randall, J. W. H., and Libbey-Owens-Ford Glass Co., laminated glass, (P.), B., 990. Randall, L. O. See Jordan, W. R.

Randall, M., and Doody, T. C., buffered and low oxygen content physiological salt solutions, A., 381.

Randall, S. S. See Gulland, J. M.

Randel, W. S., Dailey, M. C., McNeil, W. M., and U.S. Gypsum Co., high-strength calcined gypsum, (P.), B., 274. Randell, H. H., musty flavour in butter,

B., 567.

Randoin, L., Giroud, A., and Leblond, C. P., do ascorbic acid contents of the organs of the rat vary according to presence or absence of vitamin-A in the diet? A., 253. Ascorbic acid content of

plant tissue, A., 391. and Milhaud, F., utilisation of sugars; vitamin-B and alimentary equilibrium, A., 528.

Randoin, L., and Netter, R., vitamin-A and -B requirements of young rats at a particular period of growth and when given a high-carbohydrate diet, A., 764.

and Queuille, S., nature of sugar in diet and onset of avitaminosis-A, A., 646. Nature of sugars in a theoretically complete and balanced diet; can they have any effect on the development and maintenance of the rat? A., 755.

Randolph, D. W., and Gen. Motors Corp. [barium-niekel-cobalt] alloy electron emitter, (P.), B., and 239. Spark[ing]-plug electrode, (P.), B.,

Mitchel, R. H., and Gen. Motors Corp., [nickel-iron alloy for] temperature compensator, (P.), B., 431.

See also McCarty, J. E.

Randone, G. See Longo, G. Rands, F. C., and Alexander, T. F. N., surfacing of [worn] roadways [by heat, etc.], (P.), B., 321.

Ranedo, J., source of error in determination of nickel in hydrogenated fats, B., 846.

Raney, C. E. See Hans, T.

Ranganadham, S. P., and Qureshi, M., magnetic susceptibilities of nitric acid solutions, A., 279, 1192.

Ranganathan, S., and Aldis, R. W., heatcuring of shellac. I. Life under heat, B., 703.

Ranganathan, S. K., synthesis of dl-cisand -trans-1-isopropylcyclopropane-1:2-dicarboxylic acids and a resolution of the cis-acid; synthesis of umbellulanic acid, A., 1249.

See also Guha, P. C.

Rangier, M., and Lafrançaise, determination of iron in phosphate-rich material (fæces), A., 1406.

See also Wolff, R.

Rank, V. See Lindner, J.

Rankin, L. P. See Hercules Powder Co. Rankoff, G., transformation of oleie acid into claidic acid and fission of fats with simultaneous increase of the solid fatty acids, A., 965.

Rann, W. H. See McLennan, (Sir) J. C. Ranney, L., removal of gas from coal and other carbonaceous materials in situ, (P.), B., 439*

and Hayes, J. H., degasification of coal and other carbonaceous material in

situ, (P.), B., 179.

Ranshaw, G. S., qualitative analysis of textiles, B., 56. Porous waterproofing of rayon garments, B., 271. Moiré effects on rayon fabrics, B., 736. Physical properties of rayon yarn, B., 784, 979. Physical properties of rayon, B., 979.

Ransley, C. E. See Smithells, C. J.
Ransome, A. L., enargite and plumbojarosite at Picher, Oklahoma, A., 308.

Ranson, T. See Belluc, S.

Ranzi, I., Debye effect and lag of the Kerr effect in pure nitrobenzene, A., 925.

Ranzi, S., absorption of mineral substances by the embryo of Sepia officinalis, A.,

Rao, A. V., intensity and polarisation of Raman radiation from liquids, A.,

See also Bhagavantam, S.

Rao, B. N., temperature coefficient of susceptibility of tetrahydronaphthalenc, A., 278. Diamagnetic susceptibility of sulphuric acid-water mixtures, A., 558. Rao, B. R. See Brammall, A.

Rao, B. S., and Rao, M. R. A., dehydrogenating action of sulphur monoxide, A., 302.

and Subramaniam, K. S., occurrence of furan derivatives in volatile oils. II. a-Clausenan and di-a-clausenan. III. β - and γ -Clausenan, A., 479, 611. See also Bradfield, A. E., Doss, K. S. G.,

Hegde, B. J., Kotnis, M. S., and Rao, M. R. A.

Rao, B. S. R., anisotropy of the optical polarisation field in liquids. I.—V., A., 666, 780, 1184.

Rao, B. V. R., Doppler effect in light scat-tering in liquids. III. Polarisation of light transversely scattered by formic and acetic acids, A., 1180.

Rao, C. S., hydration and change in water equilibrium in electrolytic solutions,

A., 935. See also Rao, I. R.

Rao, G. S. See Dasannacharya, B.
Rao, I. M., and Wad, Y. D., diseaseresistance. II. Leaf-roll and red-leaf of American cottons, B., 1012.

Rao, I. R., and Rao, C. S., dissociation of strong electrolytes in concentrated solutions, A., 680.

Rao, K. K., and Iyer, K. V. G., effect of arrowing (flowering) on sugar-cane crops, B., 1223.

Rao, K. R., structure of bromine III, A., 1040.

Rao, M. B. R., Kaldurga conglomerates and the iron ore series of the Bababudans, Kadur district, Mysore, A., 308.

Rao, M. R. A., and Rao, B. S., automatic cut-off for electric stills, A., 46. See also Rao, B. S.

Rao, P. L. N. See Chakravarti, S. N. Rao, P. S. See Seshadri, T. R. Rao, P. V. J. See Joshi, S. S. Rao, R. H. R. See Neelakantam, K.

Rao, S.J. See Joshi, S.S.

Rao, S. R., magnetic properties of colloidal powders of metallic elements, A., 425. Magnetism and cold-working in metals. I. Polycrystals. II. Single crystals of bismuth, zinc, and tin, A., 1190, 1452. Soft X-rays and photo-electrons from nickel at different temperatures, A., 1326.

and Subramaniam, K. R., magnetic susceptibility of single crystals of lead, thallium, and tin, A., 555.

Rao, T. L., and Balakrishnan, M. R., soil survey of the Lower Bhavani project area, B., 33.

Rao, Y. K. R., abnormally high purity of some cane juices, B., 1224.

Raper, A. R. See Atkinson, R. H. Raper, H. S. See Cavanagh, B.

Raper, R. See Clemo, G. R.

Raphaël, C., localisation of hæmoglobin and its derivatives in some aphrodites, A., 621. Sec also Roche, J.

Rapkine, L., chemical processes during cell division. II. Nature and kinetics of reaction between SH groups and monoiodoacetic acid, A., 1291.

Rapoport, B. M. See Bashkirov, A. N.Rapoport, I., Abramova, V., and Siova, A., primary tar, B., 6.

and Firsanova, E., analysis of gasoline, B., 1188.

and Kosolapov, Z. E., bases of primary tar from Shurinsk coals, B., 915.

and Sudzilovskaia, M., preparation of low-boiling phenols, B., 971.

Rapoport, S., determination of the sum of glycine and serine, A., 58.

Rapp, I. See Koehler, A. E. Rapp, W. See Freudenberg, K.

Rappaport, F., and Gutmann, M., microdetermination of carbamide without distillation, A., 1237.

Rappeport-Lewey, S., methæmoglobin-producing action of sodium nitrite, A.,

1549.

See also Rabbeno, A. Rapson, G. N., and Underhill, S. W. F., use of rabbits in the assay of digitalis, strophanthus, and squill, A., 108.
Rapson, W. S. See Crowfoot, (Miss) D. M.

Raquet, D. See Caron, H.

Rare Chemicals, Inc. See Johannessohn, P.

Rarita, W., β -activity induced by γ -rays, A., 540.

See also Hall, H.

Rasch, R., acid-proof bricks, B., 1095. Raschba, E. J. See Palladin, A. V.

Raschba, H., nervous system during pregnancy, A., 1541.

See also Palladin, A. V.

Rascher, C., Betzold, M. F., and Rascher & Betzold, Inc., extraction apparatus, (P.), B., 432.

Rascher & Betzold, Inc. See Rascher, C. Raschevsky, N. von, mathematical physics in metabolising systems with reference to lung cells, A., 101.

Raschig Ges.m.b.H., F. See Prahl, W. Raschkovan, B. A., determination of small concentrations of arsine in air, A., 42. Determination of chlorodinitrobenzene in air, B., 699.

See also Gurevitsch, V. G.

Rasek, E., colour photography, (P.), B.,

Rasetti, F., Mitchell, D. P., Fink, G. A., and Pegram, G. B., absorption of slow neutrons in boron, A., 773.

Segrè, E., Fink, G. A., Dunning, J. R., and Pegram, G. B., absorption law for slow neutrons, A., 264.

See also Amaldi, E., Fermi, E., Goldsmith, H. H., and Mitchell, D. P.

Raskin, A. See Bauer, Erwin.

Rasmussen, C. O., oil gas, (P.), B., 53.

Rasmussen, E., nuclear spin separation of some cobalt terms, A., 1167.

See also Kopfermann, H. Rasmussen, R. A. See Guerrant, N. B. Rassweiler, C. F., new products and problems in construction painting, B., 108.

Rassweiler, G. M., and Withrow, L., highspeed motion pictures of engine flames,

B., 775.

Rasumovski, V., electronic theory and organic chemistry. IV. Structure of saturated and unsaturated molecular systems. V. Relations between the structure, reaction capacity, and polymerisation of organic compounds, A. 586, 780. Intensity of valency and structure of molecules, A., 925. Latent and active polarity of molecules, A., 925. Polarity and tautomerism, A., 1184. Relation between energy saturation and polarity of molecules, A., 1324. Ratanarat, C. See Brintzinger, H. Ratchevsky, P., determination of caroten-

oids in blood, tissue, and fluids in clinical

practice, A., 126.
Ratcliffe, H. L., diet and colour of birds,

A., 628. Ratekin, E. See French, H. E. Raterink, H. R. See Albert Ges.m.b.H., K., and Hester, W. F.

Rathbun, R. B., and Amer. Smelting & Refining Co., high-temperature filtering, (P.), B., 130. Bag filter, (P.), B., 130. Filtering system, (P.), B., 130.
Rathemacher, C. P. See Teichmann, C. F.

Rathenau, G., absorption of fluorspar [transmitted] ultra-violet light carbon black, gold, and rhombic sulphur, A., 261. Absorption of light by some gases in the far ultra-violet, A., 1047.

Rather, J. B., Beard, L. C., jun., Reiff, O. M., and Socony-Vacuum Oil Co., treatment of distillate petroleum

product, (P.), B., 9, 583.

Rathery, F., Choay, A., and De Traverse, P., isolation of a hypoglycamic principle in the jejunal mucosa, A., 1158. Comparison of action of insulin and of the hypoglycæmic principle of the jejunum the pancreatectomised dog, A., in

Rathjens, G. W., manipulating a liquid medium for the purpose of separating, or contacting materials, segregating, (P.), B., 400.

Rathmann, F. See Carlsohn, H. Rathsack, K. See Opitz, K. Ratish, H. D. Seo Bullowa, J. G. M.

Ratliff, A. T., and Pine-Felt Corp., decortication [of pine needles], (P.), B.,

Ratman, F., vapour pressure of mercury

dimethyl, A., 788.

Ratner, A. P., theory of adsorption of radioactive elements on polar crystals, A., 1457.

Ratner, B., and Gruehl, H. L., anaphylactogenic properties of milk; immunochemistry of the purified proteins and antigenic changes resulting from heat and acidification, A., 94. Anaphylactogenic properties of malted sugars and maize-syrup, A., 95.

Ratner, E. I., influence of exchangeable sodium in soil on its properties as medium for plant growth, B., 164.

Ratner, S., iron content of teeth of normal and anemic rats, A., 750.

Ratsek, J. C., plant roots give off organic acids, A., 1434.

Ratsimamanga, R. See Giroud, A. Ratzkoff, S. M., and Publicker Res. &

Development Co., composition for use in laundering, (P.), B., 367. Rau, D., and Roseveare, W. E., differ-

ential refractometer, A., 305. Rau, M. A. G., structure of coumarin, A., 1446.

Raub, E., tarnishing of silver and its prevention, B., 599. Influence of additions to nickel[-plating] baths on harmful effect of iron, B., 795.

Distel, F., and Schall, A., formation of blisters in silver sheet, B., 1158.

and Michaelis, K., preventing tarnishing of metal [silver] articles, (P.), B., 603. Rauch, duration of analyses, A., 441.

Rauch, A. See Probst, E. A. Ranch, C. See Winterfeld, K. Rauch, K. See Wieland, H.

Rauchenberg, M. See Vignati, J.

Raucourt, M., phytopharmacy, B., 71. New products used as antiparasitic agents in agriculture, B., 708.

Raudnitz, H., Petru, F., Diamant, E., Neurad, K., and Lanner, K., ammoresinol, A., 1259.

Rauen, H. See Wagner-Jauregg, T.

Raupp, O., titrimetric determination of pyrethrins in pyrethrum flowers, B.,

Raurieh-Sas, F. E., Gmelin's reaction (sulphides and nitroprussides), A., 948. Acetoacetic acid in urine; constitution of coloured compounds formed reaction of acetoacetic acid and its ester with sodium nitroprusside in presence of ammonia (with or without ammonium sulphate) and certain amines, A., 1140. Apparatus for obtaining hydrogen sulphide, A., 1225. Constitution of the coloured compound characteristic of the Rothera, Engfeldt, and Raurich-Sas reaction of acctone, A. 1233. Constitution of the coloured compounds formed in Rimini's reaction for acetone and some of its variations, A., 1233. Determination of hexamethylenetetramine, piperazine, dimethylpiperazine, and mixtures of theso in pharmaceutical products; determination of ethylenediamine, B., 1068.

Rausch, E., dry and moist air, B., 573. Ravdin, I. S. See Goldschmidt, S., and

Riegel, C.

Raven, C. P., glycogen metabolism of the organiser in amphibian gastrula, A., 370. Raven, F. A., Foulke, C. D., and Industrial

Furnace Corp., white cast-iron alloy, (P.), B., 937.

Ravenscroft, E. A., extraction of solids with liquids; multiple and countercurrent extraction, B., 815.

Ravenswaay, H. J. See Meulen, H. ter. Ravikovitsch, S., movement of colloidal clay in red sandy soils, B., 34.

Ravin, A., colorimetric determination of acetone by the salicylaldehyde method, A., 1363.

Ravitsch, G. B., dependence of viscosity of fats and fatty acids on temperature, B., 1053.

See also Volarovitsch, M. P.

Ravitsch, M. I., and Mamulov, S. A., asbestos diaphragms; properties of [electrolytic] asbestos-board phragms, B., 1050. See also Stender, V. V.

Ravitz, S. F., solubilities and free energies of some metallic sulphides, A., 282. and Fisher, K. E., equilibrium in lead smelting, B., 501.

Raw Products, Ltd., and Duttweiler, B., chcese manufacture, (P.), B., 169.

Rawdon, H. S., and Waldron, L. J., continuous-flow corrosion tests of steel pipe, B., 412.

Rawlings, A. A. See Challenger, F. Rawlins, G. A. See Morton & Co., Ltd., R.

Rawlinson, H., heavy chemicals in tho paper industry, B., 491. Ray, A. B. See Carbide & Carbon Chem-

icals Corp. Ray, A. C. Seo Ray, (Sir) P. C.

Ray, B. B. See Ghosh, J. C. Ray, B. C. See Sarkar, P. B.

Ray, F. E., Thiele's theory of partial valency in terms of electrons, A., 271. Changes in whisky during ageing shown in the ultra-violet absorption spectra, B., 712.

See also Harrold, G. C. Ray, G., manufacture of artificial wool in Italy and its effect on the dairy industry,

B., 490. Råy, J. N. See Chopra, N. N., Gulati, K. C., and Narang, K. S. Ray, K. L. See Goswami, M.

Ray, M., fatty acid and soap flotation applied to oxidised copper ore, B., 197.

Ray, N., fluoberyllates and their analogy with sulphates. IV. Double salts of rubidium and easium fluoberyllates. V. Double salts of thallous fluoberyllate,

Ray, (Sir) P. C., and Ghosh, N. P., complex compounds of iridium. IV., ^A.,

and Ray, A. C., fluorination of organic compounds. II., A., 1360.

Ray, R. C., and Dayal, V., micro-determination of m.p., A., 814. and Sinha, P. C., hydrolysis of magnesium

boride, A., 172.

Ray, S., theory of equation of state, A.,

Ray, S. K., parachor and ring structure. II. Spatial configuration of bridgedring compounds. IV. Structure of aliphatic diazo-compounds. V. Structure of liquid crystals, A., 412, 782. Parachor and structure of formic acid, A., 1325.

and Bhattacharya, R. R., polyhalides. IV. Formation and dissociation of polyhalides of ammonium and substituted ammonium bases, A., 1339.

Ray, S. N. See Abbasy, M. A. Ray, T. W., microchemical study of human biliary calculi, A., 99.

Raybestos Co., saturated fibrous sheet material, (P.), B., 314.

Raybestos-Manhattan, Inc. See Kuzmick, J. N., and Novak, I. J.

Rayburn, C. H. Sco Werkman, C. H. Raychaudhuri, D. P., and Sengupta, P. N., constant paramagnetism. I. II. Diamagnetic compounds containing a tran-

sition element, A., 1190.

Raychoudhury, S., Nandi, S. K., and Banerjee, J. K., activated charcoal.

II. Purification by washing with water and by activation, A., 1217.

Rayleigh, (Lord), active nitrogen of long duration, law of decay and of increased brightness on compression, A., 35.

Raymakers Syndicate, Ltd. See Melville,

Raymond, A. L., hexose monophosphates; glucose 4-phosphate, A., 589.

Raymond, L. W., thiocyanato test for soil reaction, B., 657. Clove tree and its products. I. Determination of essential oil in cloves, etc., B., 1233.

Raymond, W. D., composition and examination of Tanganyika arrow poisons, B.,

Raymond Brothers Impact Pulverizer Co. See Senseman, W. B.

Raymond-Hamet, bulbocapnine, A., 634. Modifications of physiological action of 3:4-dihydroxyphenyl-β-aminobutanol by substitution of methylamino- for the amino-group, A., 757. A new digitalic: Menabea venenata, Baillon, A., 910.

Raytheon Manufacturing Co. See Spencer,

Raythorn Production Corporation. See

Spencer, P.L.Rayton, W. See Wilkins, T.R.

Razafimahery, R., minimum endogenous sulphur metabolism: magnitude, magnitude, origin, character, A., 237. Physiology of sulphur in exogenous protein metabolism, A., 629.

See also Bonnet, R., and Terroine, E. F.

Razumov, A. I. See Arbusov, A. E. Razumov, V. K., proparation of aniline from benzene and ammonia in a high-frequency high-tension field, A., 1103.

See also Plotnikov, V. A.

Razuvaiev, G. A., and Malinovski, V. S. [with Arkina, S. E.], hydroxyderivatives of 5-alkyl(aryl)-5:10-di hydrophenarsazine. III. Synthesis of derivatives of the betaine type, A.,

and Malinovski, V. S. [with Shigatsch, A. F., and Azarch, Z. I.], hydroxyderivatives of 5-alkyl(aryl) - 5:10 - dihydrophenarsazine. II. Synthesis and properties of monohydroxy-5-R-5-R'-5:10-dihydrophenarsazine, A.,

Malinovski, V. S., and Godina, D. A., dihydroxides of tertiary arsines, arsonium derivatives, and their salts,

A., 61. Rea, C. E. Sco Peters, H. C. Read, B. E. Sco Lee, W. Y., Mar, P. G.,

Pak, C., and Yi, C. L. Read, E. B., determination of alkalis in silicates with special reference to high-

alumina refractories, B., 21.

Read, F. M., and Cole, C. E., mineral nutrition in Victorian fruit trees, B.,

Read, F. O., ozonisers, (P.), B., 642. Water-ozonising apparatus, (P.), B., 1182.

Read, H. H., gabbros and associated xenolithic complexes of the Haddo House district, Aberdeenshire, A.,

See also Kennedy, W. Q.

Read, H. J. See Swann, S., jun.

Read, J., absorption of monochromatic X-ray beams, of wave-length in the region 50-20 X units, in lead, tin, copper, and iron, A., 262. See also Galloway, A. S.

Read, J. G. See Grine, H. A.
Read, J. W., and Haas, L. W., baking
quality of [wheat] flour as affected by enzymo actions; relative starch-lique-fying power of the diastatic agents investigated, B., 344.

Read, L. S. See Chaikoff, I. L.Read, T. A., lead and zinc flotation sections of the concentrator of Broken Hill South, Ltd., B., 326.

Read, W. H., insecticide and fungicide investigations: (i) red spider mite; (ii) copper oxychloride; (iii) copper salicylanilide; (iv) cuprous cyanide; (v) [cyanide fumigant]; (vi) rose rust, B., 708. Insecticide and fungicide investigations, B., 756.

Reagan, W. J., slag control for basic open-hearth high-carbon steel, B., 410.

Reale, Lorio, combined and free lipins in blood plasma, A., 1008.

See also Artom, C.

Reale, Loto. Seo Peretti, C. Reaney, R. J., bonding of rubber and metal, (P.), B., 946.

Rearick, J. S. Sco Goodwin, R. T.

Reavell, E. A., chemical works pumping and acid handling, B., 863.

Reavell & Co., Ltd., and Humby, A. J. D., [electric] temperature and other regulating means, (P.), B., 107. Reavenall, A. C., preparation of finings [for

beer], B., 901.

Reay, G. A., testing for formaldehyde in salt-cured ling, B., 472. Salt curing of

herring, B., 1231. Reber, J. W. Sce Woodall-Duckham (1920), Ltd.

Reboul, J., action of ordinary metals on the photographic plate and the electro-meter, A., 943. Possible correlation between intensity of cosmic radiation and velocity of certain chemical reactions, A., 1214.

Rechniewski, C. See Beretervide, J. J. Reck, W., and Smekal, A., Röntgenographic thermal expansion of very pure sodium

chloride, A., 150. Reckendorfer, P., physical chemistry of copper-limo sprays, B., 341, 1116.

Recknagel, A., emission constants of singleand poly-crystalline materials, A., 263. Reconstruction Finance Corporation. Sec

Schoen, A.

Record, B. R. See Carter, S. R. Record, P. R. See Bethke, R. M., Hunt, C. H., and Kick, C. H.

Rector, T. M., and Baker-Bennett-Day, Inc., extracting oil from cashew nuts, (P.), B., 1107.

Red River Refining Co., Inc. See Schulze, J. E.

Redaelli, P. Seo Castellani, A.

Reddi-Pantulu, D. V. See Bates, L. F.

Redding, G. K. See Schroeder, C. H.

Reddish, G. F., antiseptic testing, B., 1182. Reddish, W. T., and Twitchell Process Co., treatment of vegetable fibres, (P.), B.,

Reddrop, H. C. Sce S.O.S. Patents Co., Ltd.

Reder, R. See Gallup, W. D.

Redfarn, C. A. See Schidrowitz, P. Redfern, A. H. See MacCallum, F.

Redfield, H. L., and King, G. B., addition compounds of phosphorous acid with certain organic compounds, A., 1465. Redina, L. V. See Rabitscheva, V. N.

Redlich, O., and Pordes, F., Raman spectra of deuterochloroform and deuteromethyl alcohol; vibration model of

the type XY₃Z, A., 663. and Rosenfeld, P., calculation of activity coefficients; electrolytic dissociation of nitric acid, A., 799.

Rosenfeld, P., and Stricks, W., calculation of activity coefficients and molal

volumes, A., 428.

and Stricks, W., vibrations of benzene and Raman spectra of benzene-d and benzene- d_2 , A., 137. Raman spectra and vibrations of deuterobenzeno and p-dideuterobenzene, A., 663. Raman spectrum of deuterobromoform, A., 776. [Raman] spectra of o-dideuterobenzene and N-deuteropyrrole, A., 922. Raman spectra and vibrations of di- and tetra-deuterobenzene, A., 1319.

Redmon, B. C. See Fessenden, R. W. Redro Laboratories, Inc. See Austin, W. E.Reece, R. P., and Turner, C. W., influence of cestrone on galactin content of male rat pituitaries, A., 1427.

Reece, W. H., strength of vulcanised

rubber, B., 32. Reed, C. E. See Hauser, E. A.

Reed, F. P. See Hilton, W., and O'Donnell, R. W. H.

Reed, H. S., and Lamie, R. D., distilling apparatus for coal, (P.), B., 532. Distilling or cracking of hydrocarbons, etc., (P.), B., 682.

Reed, H. V., generation of foam for fire extinction, (P.), B., 353.

Reed, J. P., soldering or brazing of alloy

steels, B., 23.
Reed, J. W., mineral separator, (P.), B., 673.

Reed, M. C., and Goodrich Co., B. F., [N - hydroxyaryl -]substituted pholines [thiomorpholines, and piperidines], (P.), B., 716.

See also Campbell, A. W., and Carbide &

Carbon Chem. Co.

Reed, R. F., lithography on coated paper, B., 689. Technology of lithographic

papers, B., 735.

Dorst, P. W., George, A., and Lithographic Teehn. Foundation, Inc., intaglio lithographic plates from original plates and transfers, (P.), B.,

Reed, R. M., and Tartar, H. V., salts of higher alkylsulphonic acids, A., 421.

Reedy, J. H. See Phipps, H. E.

Reeke, T., and Werle, E., effect of intravenously-given callicrein on cerebrospinal fluid pressure, A., 1147.

Reenen, T. H. van, determination of pentosans in grasses, B., 427.

Reerink, E. H. Sec Boer, A. G.

Reerink, W., and Goecke, E., tests for suitability of briquette pitch and their value in briquetting, B., 529.

Rees, A. G., and Hudleston, L. J., decomposition of fluosilicate ion in aqueous and in aqueous salt solutions, A., 1345.

Rees, F. M. See Braun, C. E.

Rees, H. G., amino-acids of the mixed proteins of ox muscle; basic aminoacids, A., 623.

Rees, H. V. Sec Texas Co. Rees, R. L., calculations concerning combustion of coal, B., 482, 1026.

Rees, R. W. See Gen. Electric Co., and M.-O. Valve Co.

Rees, W. J., [refractory] facing material, (P.), B., 545.

See also Lynam, T. R.

Reese, T. S., transfer decorating, (P.), B., 589.

Reetz, T. See Simon, Arthur.

Reeve, C. S. See Barrett Co.

Reeve, L., vacuum-fusion method for determination of gases in metals, B.,

Reeves, E. B. See Weech, A. A. Reeves, G. See Brit. Celanese.

Refining, Inc. See Clayton, В., and Stadt, H. M.

Regan, J. F. See Bowman, II. Regan, W. M., and Freeborn, S. B., effect of flies and fly sprays on physiological processes of the dairy cow, B.,

Rege, P. S., and Wheeler, T. S., benzoin reaction. IV. Kinetics in presence of organic solvents, A., 297.

Regen, E. M. See Wilkins, W. E.

Regener, E., cosmic-ray measurements at great water depths and radioactivity of dry batteries, A., 919. Oxygen content of the stratosphere, A.,

Reger, K., chemical condition of the photo-electrically active hydrogen absorbed in platinum and tantalum, A., 1181.

Reger, M. See Gen. Electric Co. Reggiori, A. See Musatti, I. Regidor, P. P. See González Núñez, F. Regler, F., detection of lattice distortions and their significance in material testing, B., 458.

Regler, H. See Hein, F.

Régnier, J., Delange, R., and David, Robert, influence of combined acid on anæsthetic power of salts of novocaine, A., 634.

Lambin, S., and Szollosy, E., toxicity of organic salts of novocaine and morphine; determination of mean lethal doses, A., 1022.

and Quevauviller, A., anæsthetic power of hydrochloride and phenylpropionate of novocaine on motor nerves of Rana esculenta, A., 1021.

Regnier, M. T., poisons of animal origin;

the venins, A., 1553.

Regnier, R., treatment of Laspeyresia pomonella, L., in Normandy, B., 1062.
Regniers, P., and De Vleeschhouwer, G.,

some analeptic circulatory and respiratory agents, A., 1021.

Rehbein, A., safflower oil, B., 648.

Rehbinder, P., and Roschdestvenski, D., physico-chemical considerations on detergent action of soap and practical questions of the soap industry, B., 378.

See also Mirlis, D.

Rehfus, W., air and similar filters, (P.), B., 912.

Rehm, K. See Gleu, K.

Rehner, J., jun., widths of X-ray bands in solids, A., 15.
Rehorst, K., and Scholz, H., d-saccharo-

dilactone, A., 591.

Reich, G. T., repurification of carbon dioxide gas, (P.), B., 275. Distillation of alcohol-containing fermented liquors, (P.), B., 758. Alkali-metal compound recovery from waste organic mixtures [fermentation residues], (P.), B., 1228.

Reich, O. R. von. See Weiss, Hugo. Reichard, O., detection and determination of sodium in wine and the sodium content of Palatinate wines, B., 1064. Determination and content of citric

acid in wine, B., 1122. Reichard, S. K. See Finnemore, H. Reichardt, H. See Franck, H. H.

Reichardt, O., modern anodes for nickel-

[plating] baths, B., 328.

Reichart, C., electrification of insulating liquids by flow or filtration, B., 844.

Reichart, J. H., effect of irradiated ergosterol on the phospholipins of the blood in pulmonary tuberculosis, A., 506.

Reichel, J., Schneider, J. E., and Sharp & Dolme, Inc., anthrax antigen preparation, (P.), B., 1068.

Reichel, L., and Eckhoff, K., liver enzymes. V. Aldehydrase of liver, A., 242.

and Köhle, H., liver enzymes. III. Aldehydrase. IV. Alcohol-dehydrase, A., 109.

and Kirschbaum, Ernst, organo-metallic compounds. I. Aromatic tellurium compounds, A., 1280. and Neeff, A., liver enzymes. VI.

Citric acid dehydrogenase, A., 894. Reichel, M. See Thannhanser, S. J.

Reichel, S. von, and Deppe, M., constitution of dihydrovitamin- D_2 , A., 603.

Reichenbach, A. T., sheet steel, (P.), B., Reichenberg, E. H., and Reichenberg, S. W.,

production of benzidine and its homologues and derivatives from azo- or azoxy-derivatives, (P.), B., 139.

Reichenberg, S. W. Sco Reichenberg, E. H.

Reichert, Benno, catalytic hydrogenation of B-nitro-a-methoxy-a-arylethanes, A.,

and Hoffmann, W., a\beta-diarylethylamines and their transformation into tetrahydroisoquinolines. I. and II., A., 482, 613. Catalytic dehydrogenation of 3-phenyltetrahydroisoquinolines, A., 863.

Reichert, Bruno, and Rydberg, E., making leather and other fibrous materials impermeable to liquids, (P.), B., 1205. Reichert, F. L. See Chaikoff, I. L. Reichert, I., and Perlberger, J., xyloporosis

-the new citrus disease, A., 122.

Reichert, J. S. See Du Pont de Nemours & Co., E. I. Reichert, R., occurrence of minerals in

Hungary, A., 307.

Reichrudel, E. See Spiwak, G. Reichstein, S. See Bernal, J. D.

Reichstein, T., constituents of the adrenal gland. I. Cortin. II. " β -Adreuo-sterone." IV. V. Chemical identi-fication of the androstane skeleton. VI. Methods of separation and isolation of the substances Fa, H, and J, A., 473, 605, 854, 1382. Cohen, A., Ruth, M., and Meldahl, H. F.,

synthesis of 2:3-di- and 2:3:4-trimethylbenzyl alcohol; anomalous re-

actions, A., 840.

and Goldschmidt, A., constituents of the adrenal gland. III. Sulphur-containing substance, A., 704.

See also Ruzicka, L., and Steiger, (Frl.) M.

Reid, C. See Kerly, M.

Reid, E., calcium, phosphorus, and nitrogen retention of rats on soya bean-egg powder and whole milk powder diets, A., 237. Fluorine content of some Chinese food materials, B., 811.

Reid, E. E., Cockerille, F. O., Meyer, J. D., Cox, W. M., jun., and Ruhoff, J. R., oleyl alcohol (Δ^{θ} -octadecenol), A., 589.

Ruhoff, J. R., and Burnett, R. E., dodecyl bromide (lauryl bromide), A.,

See also Chitwood, H. C., Dunning, B., jun., Du Pont de Nemours & Co., E. I., Ruhoff, J. R., and Vivian, D. L. Reid, E. W. See Carbide & Carbon

Chem. Corp.
Reid, F. R. See Phillips, M.

Reid, G. H. See Carbide & Carbon Chem. Corp.

Reid, J. B. Seo Winston, A. W.

Reid, J. D., and Lynch, D. F. J., ketimine dyes and related compounds, A., 1253.

Reid, W. D., preservation of silage, B., 121. and Cottier, W., cel-worm disease of chrysanthemums, B., 38.

Reid, W. G. Sec Imperial Chem. Industries.

Reid, W. S. (Edinburgh). See Butler, J. A. V.

Reid, Walter S., and Amer. Smelting & Refining Co., [ore] sintering, (P.), B.,

Reif, G., reactions of Helvella. II., A., 1154. Reiff, O. M. See Rather, J. B.

Reiger, R., and Bach, S., gelation of different kinds of gelatin, A., 796. Influence of $p_{\rm H}$ on gelatin, A., 1068. Influence of addition of sodium chloride

on gelation, A., 1202.

Reihlen, H., and Flohr, E., complex salts of a-phenylethylamine; equivalence of the four co-valencies of bivalent platinum and palladium, A., 462.

and Knöpfle, L., configuration of amino-

phenylacetic acid, A., 1106.

Seipel, G., and Weinbrenner, E., asymmetric platinum atom. VII. A new type of optically active compound, Ă., 84.

Reikie, M. K. T. See Carr, J. D.

Reilhes, R., histochemical localisation of hordenine in barley plantules, A., 1166.

Reilly, P. C. See Cislak, F. E., Derby, I. H., Hansen, M. S., and Mootz, F. J.

Reiman, C. K., tanning skins or hides, (P.), B., 1058.

Reimann, A., neutral sodium pyrophosphate, (P.), B., 101. Reimann, A. L., surface ionisation of

potassium on tungsten, A., 129. and Grant, C. K., high-temperature

properties of niobium, A., 1056.

Reimann, F., Biedermann, H., and Zwilliger, L, origin of the anti-anæmic factor. IX. Action of liver in pernicious anæmia, A., 1538.

Reimann, S. P., and Hammett, F. S., proliferation-stimulating action 1:2:5:6-dibenzanthracene Obelia geniculata, A., 373.

Reimer, M., action of light on β -bromobenzylidenepyruvic acid, A., 1108.

Reimers, F., behaviour of methyl-red in alcohol-water solution, A., 1065. See also Baggesgaard-Rasmussen, H.

Reimers, H. A. Sce Dow Chem. Co.

Rein, H. See Mertens, O. Reinartz, F., and Zanke, W., degradation of fenchone in the animal organism, A., 1514.

Reinartz, L. F., slag control in rimming steel, B., 410. Open-hearth furnace design and operation, B., 644.

Reindel, F., and Niederländer, K., synthesis of sterols with modified side-chains and their epi-derivatives from lithocholic acid, A., 841.

Reindel, W. See Schuler, W. Reinders, W., and Bontenbal, J., modern photographic positive papers, B., 909.

Reinecke, H. See Treibs, A.

Reineke, J. H., means for automatically regulating a physical condition, (P.), B., 1136.

Reiner, H. C., molasses product and its production, (P.), B., 388.

Reiner, L., relation between toxicity,

resistance, and time of survival, A., 517.

Smythe, C. V., and Pedlow, J. T., glucose metabolism of trypanosomes (T. equiperdum and T. Lewisi), A., 524.

See also Pedlow, J. T.

Reiner, M. See Sobotka, H.

Reiner, O., reversing means [valves] for regenerative-furnace plant, (P.), B.,

Reiner, S., rubber varnishes, B., 1055. Pigments for the rubber industry, B., 1220.

See also Groebe, F.

Reinert, H., tall oil as varnish material, B., 1054.

Reinhardt, G. A., and Youngstown Sheet & Tube Co., high-silicon steel articles, (P.), B., 459.

Reinhart, W. H. See Yant, W. P.

Reinhold, J. G., Liebermann-Burchard reaction velocities of sterols. I. Difference between free and ester cholesterol applied to determination of cholesteryl esters. II. Test for coprostenol in plasma, A., 467.

See also Letonoff, T. V.

Reininger, H., influence of test conditions on Brinell hardness numbers of cast iron, B., 1155.

Reinitz, B. B. See Wiseman, R. J. Reinmuth, O. Sco Kharasch, M. S.

Reis, A., and Kluge, L., independence of malignant growths and type of metabolism, A., 882.

Reis, F., and Powers, H. H., sclenium as catalyst in determination of non-proteinnitrogen in blood, A., 1283.

Reisch, O. See Fischer, R.

Reiss, P., platinum potential corresponding to inactivation of proteolytic power of papain by oxidisers, A., 244. Sco also Nordmann, J.

Reissner, R., cobaltiferous oligonspar, A., 959.

See also Heeht, F.

Reith, J. F., and Dijk, C. P. van, differentiation of refined and unrefined lard, B., 1105.

Reitler, E., German mercury, B., 549. Measurement of thickness of coatings for corrosion protection, B., 841.

Reitler, R., colour reaction of cerebrospinal fluid in cerebrospinal meningitis, A., 361. Reitz, A. W., Raman effect. LVII. Fivemembered rings. 1. Raman spectra. LX. Polarisation measurements. 1.

Experimental method, A., 1180, 1318. and Stockmair, W., Raman effect. I Benzene derivatives. X., A., 137.

and Ypsilanti (Gross-Prinz), Raman effect. XLVI. Poly-substituted benzenes. VIII., A., 10. See also Kohlrausch, K. W. F.

Reitz, O., alcoholic fermentation in heavy water, A., 522. Release of protons and deuterons from organic molecules in general basic catalysis, exemplified by bromination of nitromethane, A., 1075.

in light and heavy water, A., 1210. and Bonhoeffer, K. F., incorporation of deuterium into growing organisms.

Hydrolysis of monochloroacctate ion

II., A., 256. Reizenstein, L. J., practical applications of fish oil, B., 558. Constants and properties of processed fish oils, B., 799. Polymerisation of china-wood oil, (P.), B., 1107.

Rembert, E. W., and Johns-Manville Corp., hydrous [magnesium-sodium] silicato gel, (P.), B., 789.

Remenec, M., determination of arsenic in gelatin by a biological method (using Penicillium brevicaule), B., 561. Storage and conservation of bones intended for gelatin and glue manufacture, B., 1009.

Remesov, I., synthesis of Δ^4 -dehydroandrosterone (3-hydroxy-△4-ætiocholen-17one) directly from cholesterol, A., 854. Artificial production of estrogenic substances from sterols. II. Synthesis of an isomeride of the follicular hormone from vegetable sterols, A.,

and Levaschova, N., rapid production of cholesterol from brain, A., 1139.

and Tavaststjerna, N., artificial production of estrogenic substances from sterols. I. Synthesis of the æstrogenic substance from animal sterols, A., 1505.

Remick, A. E., reduction potentials of organic systems. I. Bimolecular reduction of thioindigotindisulphonate, A.,

Remington, J. S., wood preservation, B.,

Remington, R. E. See Coulson, E. J. Remington, T. S., zinc oxide, B., 59.

Remington Arms Co. See Brün, W., Burns, J. E., and Herz, E.

Remiz, E. K., catalytic hydration of ole-fines. II. Hydration of propylene over liquid catalysts at atmospheric pressure, A., 819.

Sce also Nazarov, S. A.

Remy, E., composition of "nutritive beers," B., 1121. [Nutritive value of] bouillon cubes, B., 1124.

and Enzenauer, H., determination of small quantities of nitric acid by means of phenoldisulphonic acid, A., 1478. See also Uhlenhuth, P.

Remy, H. [with Seemann, W., Panceram, A., and Friedland, H.], sorption of fogs by liquids, A., 1198.

Remy, T. P. See Texas Co.

Renaud, J., morphological studies on wine yeasts of the Loire Valley, B., 712.

Renaud, P., and Baumgardt, E., law of displacement of equilibrium, A., 159. See also Costeanu, G.

Renaudie, M. See Sabrou, L. G.

Renaudin, J., nephelometric determinations using the photo-electric cell, A., 535. Micrometric oxalic acid titration, A., 706. Determination of urea in bloodserum by the action of hypobromite and titration of excess of the reagent, A., 1009.

Renck, II., mercurised printing plates, (P.), B., 938. Revival of mercurised printing plates, (P.), B., 1102.

Rencker, E., softening of vitreous substances, A., 146. Dilatometric study of ternary glasses, A., 680. Lead oxides, A., 946. Use of the dilatometric method in chemistry, A., 956.

and Bassière, M., allotropic modifications of lead monoxide, A., 575. and Dubois, P., hydrates of manganese sulphate, A., 1218.
Rendell, L. P. Sco Imperial Chem. In-

dustries.

Rendle, B. J., and Franklin, G. L., differentiation of casein and blood-albumin glues in plywood by means of the microscope, B., 512.

Rendle, T., storage of soft fruit, B., 169.

Rendlen, E. See Bamann, E. Rene, A. See Wagner, H.

Renfrew, A. See Imperial Chem. Industries.

Rengachari, S. Sec Dey, B. B. Renker, M., photographic

films and carriers therefor, (P.), B., 621.

Renn, P. See Kirrmann, A.

Rennebaum, E. H., Escherichia coli and three of its rough variants, A., 384. Rennenkampf, U. von. See Meyer, Ludwig.

Renner, A. See Weidenhagen, R.

Renner, L., vitamin-C content of milk powders, B., 903.

Renner, S., some root fungi, A., 639.

Rennerfelt, I., [heating stove for] destruction of insects, etc., (P.), B., 622.

Rennick, C. A., and Curry, O. B., electrical gauge, (P.), B., 1104.

Renninger, M., X-ray determinations with the diamond, A., 128. Deformation and re-orientation in the surface working (lathe cutting) of iron, B., 1209.

Renold, A., cation exchange in permutites, especially hydrogen and heavy-metal

permutites, A., 26. Renoll, M. W. See Henne, A. L., and

Midgley, T., jun.

Renosto, G., pathogenic mechanism of green diarrhoea of pigeons in avitaminosis, A., 231.

Rensch, C. F., detecting foreign solid, liquid, and gaseous materials in gases,

(P.), B., 1025.

Rentschler, H. C., and Henry, D. E., photo-electric threshold of uranium, calcium, and thorium treated with limited amounts of oxygen, A., 1320. Rentschler, M. J., and Jeavons, W. R.,

hydrogen peroxide, (P.), B., 275.

Renwick, F. F., fluorescent screens for use with X-rays, (P.), B., 845. and Shepherd, F. J., fluorescent [X-ray]

screens, (P.), B., 333.
Repieva, A. See Frederiks, V.
Reppekus, W., regenerative coke oven, (P.), B., 867.

Repsche, J. C., gold colloids in sylvine

crystals, A., 1460.
Repse, I. C. See Arzibischev, S. A. Republic Steel Corporation. Sec Cain, G. D., Cape, A. T., and Smith, E. C.

Resch, K. See Száva-Kováts.

Rescorla, A. R., and Carnahan, F. L., animal and vegetable oils: viscositytemperature characteristics, B., 1215. Fry, \tilde{E} . M., and Carnahan, F. L., photometric determination of iron in used engine oils, B., 866.

Research Corporation. See Gilbert, C. G., Herber, P., and Wintermute, H. A.

Research Corporation of New York, apparatus for electrical precipitation of suspended particles from gaseous fluids, (P.), B., 508. Electrical treatment of gaseous fluids, (P.), B., 508. Electrical systems and methods for treating gaseous fluids, (P.), B., 941.

Research, Inc. Sec Huggett, M. C.

Resinous Products & Chemical lubricating oils, (P.), B., 261. [Soluble] multivalent metal salts [driers] and compositions containing them, (P.), B., 972.

See also Bruson, H. A., and Fonrobert, E. Resinox Corporation. See Berlin, $H_{\cdot \cdot}$, and Woodruff, J. C.

Resnik, H. See Mason, M. F.

Resnik, H., jun., and Friedman, B., mechanism of increased oxygen consumption in patients with cardiac disease, A., 1539.

Resow, II., and Krupp Grusonwerk Akt.-Ges., F., heat treatment of manganese hard-steel objects, (P.), B., 25.

Ressler, I. L. See Du Pont de Nemours & Co., E. I.

Restelli, E., condensation of indolealdehydes with hippuric acid, A., 342.

Restivo, G. See Berni, A. Retezeanu, (Mme.). See Urechia, C. I. Rethorn, H. See Schmalfuss, H.

Reti, L., state of combination of vitamin-A

in liver oils, A., 118.

Retovsky, R., model experiment in respiration using croton oil in the presence and absence of carotenoids, A., 234. Hydrocatalase, A., 1471.

and Urban, A., pigment component from sunflower oil from sub-Carpathian

Russia, B., 28.

Rettenmaier, A., dry sulphur removal from gas, B., 5.

Reuhl, E., oxygen intake of oily and starchy seeds, A., 122.

Reumuth, H., mercerisation as viewed under the microscope, B., 143. Waterproofing [of textiles], B., 143.

Reusch, H. J. See Wartenberg, H. von. Renter, A., influence of thyroxine on tissue

respiration, A., 387.

Reuter, B., 1-phenyl-2:3-dimethyl-5-pyrazolone [antipyrine], (P.), B., 908. 4-Dimethylamino-1-phenyl-2:3-dimethyl-5-pyrazolone [pyramidone], (P.), B., 908.

Reutovski, exploitation of the gold-arsenic ores from the Dshetuigarin deposit, B., 199. Treating Nevijansk ore for recovery of gold, B., 199.

Revelle, R., and Fleming, R. II., solubility product constant of calcium carbonate in sea-water, A., 30.

and Moberg, E. G., probable rôle of boron in buffer mechanism of seawater, A., 183.

Revere Copper & Brass, Inc. See Wilkins, R. A.

Revillon, G. See Bernheim, G.

Revol, L., and Ferrand, M., micro-determination of sulphur in biological material, A., 126.

Rewald, B., extraction of oils having high vitamin contents from fish livers, particularly cod livers, (P.), B., 285. Composition of plant phosphatides, B., 1124. and Amer. Lecithin Co., treatment of

fibrous and textile materials [with phosphatides], (P.), B., 1205.

Rexer, E., new absorption band in potassium bromide crystals, A., 1047.

Rexwinkle, F. D. See Standard Oil Co. Rey, M., segregation process for minerals low in copper oxide, B., 840.

and Baiwir, G., reducibility of zinc ferrites, B., 889.

Reyerson, L. H., and Cameron, A. E., sorption of bromino and iodine by activated charcoal, A., 422.

and Gillespie, B., equilibrium studies on exchange reaction between acctylene and heavy water, A., 29. Equilibria of reactions between acetylene and

heavy water at 25°, A., 427. and Yuster, S. T., chlorination of propane. II. The heterogeneous reaction, A., 35.

See also Yuster, S. T.

Reyman, J., and Suszko, J., hydriodoquinine and niquine, A., 490.

Reynard, O., and Tapping, F. F., briquetting of finely-divided fuels, (P.), B., 729. Reynolds, A. See Anderson & Son, D. Reynolds, D. A., and Davis, J. D., reactiv-

ity of coke; determination of reactivity of coke in carbon dioxide, B., 225.

Reynolds, D. H. See Clark, Q. L. Reynolds, D. L., two monzonitic series of the Newry complex, A., 1357.

Reynolds, D. S., Kershaw, I. B., and Jacob, K. D., multiple-unit distilling apparatus for determination of fluorino by Willard and Winter's method, A., 446.

Marshall, H. L., Jacob, K. D., and Rader, L. F., jun., phosphato fertilisers by calcination process, B., 805. See also Jacob, K. D.

Reynolds, H. See Mickelson, M. Reynolds, H. H. See Daudt, H. W. Reynolds, J. A. See Wahlin, H. B.

Reynolds, J. W. H., and Sterling Batteries, Ltd., electric [primary] batteries, (P.), B., 282.

Reynolds, M. C., margarine, (P.), B., 1176. See also Epstein, A. K.

Reynolds, R. J. W. See Imperial Chem. Industries.

Reynolds, S. R. M., Firor, W. M., and Allen, W. M., relative effectiveness of progestin in hypophysectomised and normal rabbits, A., 1564.

Reynolds, (Miss) T. M., and Robinson, Robert, derivatives of quinazoline, A., 486.

Reynolds, W. See Culbertson, J. B. Reynolds, W., jun., cleaning bituminous coal while cutting, B., 1025.

Rezabek, G., effect of variations in $p_{\rm H}$ of vegetable tan liquors on amount of tannin fixed by hide pelt, B., 290. Effect of acidity of vegetable tan liquors on swelling of pelt and physical properties of the finished leather, B., 754. Effect of alkalinity on content of insoluble matter in an untreated quebracho

extract, B., 947. Režek, A., reaction of glyoxal with dimethyldihydro-resorcinol, A., Mineral water of Rogaška Slatina, A., 699.

Rezkov, M., tinless bronze, B., 198. Reznek, S. See Niederl, J. B. Reznik, L. J., diffusion, viscosity, and surface tension of oak extracts, B., 420. Diffusion and combination of willow and pine tanuide mixtures, B., 420. Diffusion and combination of willow tan-

nides, B., 420. Rhead, T. F. E., and Jefferson, R. E., texture of refractories. I. Non-regularity of texture of gas-works fireclay refractories and its possible effect on

durability, B., 60.

Shorrock, J. N., and Evans, C. L., texture of refractories. II. Pictorial methods of recording texture of refractories and similar materials, B., 60.

Rheinberger, M. B., nitrogen partition in urine of various primates, A., 1406.

Rheinische Kampfer-Fabrik G.m.b.H. See Skraup, S.

Rheinische Metallwaaren & Maschinen-fabrik, and Boecker, G., hard metals, (P.), B., 1048.

Rheinwald, H., ammonia and nitrate concentrations of the soil solution: influence on extent and manner of nitrogen manuring, B., 707. Intake of phosphoric acid by plants from dilute solutions, B., 1115.

and Preuschen, G., use of liquid manure and drainage from manure heaps in farm management, B., 341.

Rhiem, H. C. See Langenbeck, W. Rhinelander Paper Co. See Dodge, L. L. Rhinesmith, H. S., semicarbazones of [dialkyl] ketones, A., 708.

Rhoads, A. E. See Crosby, E. L. Rhoads, C. P. See Miller, D. K. Rhoden, E. See Anselmino, K. J.

Rhodes, C. C., Bartel, L. H., and Jooste, P. E. F., effects of varying amounts of animal protein fed to white Leghorn pullets. I. Influence of low-, medium-, and high-protein diets on the weight and number of eggs. II. Factors lated with egg size and number of eggs, A., 103; B., 427.

Rhodes, E., and Sekar, K. C., creaming [rubber] latex with gum tragacanth, B., 289. Creaming [rubber] latex with tragon-seed gum, B., 289. Internal protective coatings for [rubber] latex containers, B., 338.

Rhodes, E. O., Fitzpatrick, J. C., and Amer. Tar Products Co., coking of carbonisable materials and recovering vapours and gases resulting therefrom, (P.), B., 628. and Hyde, E. H., tar products for water-

and damp-proofing, B., 132.
Roche, J. N., and Gillander, H. E., creosote permanence-toxicity relationships, B., 62.

Volkmann, E. W., and Barker, C. T., viscosimeter for bitumens with extended range, B., 532

See also Volkmann, E. W.

Rhodes, F. H., and Clark, J. M., jun., corrosion of metals by water and carbon dioxide under pressure, B., 1098.

Rhodes, H. E., and Aerovox Corp., electrolytic condenser, (P.), B., 797. Electrolytic [condenser] cells, (P.), B., 1002.

Rhodin, B. E. F., and Munroe, D., sulphur dioxide, (P.), B., 369.

Rhodius, R. See Ollendorff, G.

Riazanceva, E. N. See Kretovitsch, V. L. Riazanovski, N., chemical demulsification, B., 227.

Ribadeau-Dumas, C. See Guillain, G. Ribas, I., Tapia, E., and Caño, A., addition of chlorocarbamide to doubly-bound carbon, A., 1103.

Riband, G., high temperatures, B., 255. Ribbans, S. H., and Fordham, W. F., automatic control of washing or dyeing machines, (P.), B., 737.

Ribbius, F. J. See Kessener, H. J. N. H. Ribère. See Aubry, P., and Thiodet.

Ribereau-Gayon, J., colleid phenomena in wines, B., 518. Elimination of copper from musts and wines, B., 1014.

and Peynaud, E., clarification of wine, B., 214. Formation and precipitation of colloids in red wines, B., 1014.

Ribon, E. See Oddo, G.

Ric-Wil Co. See Black, C. A.

Ricard, R., second spark spectrum of mercury, A., 398.

and Saunier, A., spark spectrum of cadmium, A., 128.

See also Herman-Montagne, (Mme.) R.Ricca, B., and Meduri, P., analysis of water from Torrente Iungari, Calabria, A.,

Ricca, S. See Sanfilippo, E.

Riccardo, S. See Rossi, Giacomo. Ricchiuti, G. See Cantarow, A. Ricci, G. See Pelagatti, U.

Ricci, J. E., determination of sulphato by titration with lead nitrate, using cosin as indicator, A., 578. Ternary systems $KI-K_2SO_4-H_2O$ and NaI-

Na₂SO₄-H₂O, A., 1070. and Yanick, N. S., ternary system NaCl-NaI-H₂O, A., 429.

Rice, C. E., Sory, R., Smith, James E., Faed, P. E., and Drake, A. A., effect of diet and vitamins on trachoma, A., 1408.

Rice, C. W., practical interpretation of [boiler] feed-water tests, B., 399. Unusual boiler problems caused by corrosion, B., 1071.
Rice, E. W., and Santa Cruz Portland

Cement Co., high-silica cement, (P.), B., 1096.

Rice, G., dyeing of felt for insulating purposes, B., 188. Dyeing and finishing of lace fabrics, B., 492.

Rice, C. E., and Conservation Corp. of America, seasoning, preserving, and tempering wood and woody growths, (P.), B., 150.

Rice, G. S., and Greenwald, H. P., testing explosibility of coal dusts, B., 530, 913.

Rice, O. K., zero-point energy of an activated complex and the reaction $2NO + O_2 \rightarrow 2NO_2$, A., 294. Thermodynamic properties of nitric oxide [as] an example of an associated liquid, A., 936.
Allen, A. O., and Campbell, H. C.,

induction period in gaseous thermal

explosions, A., 33.
and Sickman, D. V., decomposition
of azomethane. I. Apparatus. II. Pure azomethane and azomethane in

presence of helium, A., 684. See also Gibson, G. E., and Sickman,

Rice, R. V., and Harden, W. C., p-butylsaligenin, A., 466.
Rice, W. E., data on combustion in kilns,

B., 1135.

Rich, C. E., physico-chemical preperties of wheat-flour proteins, B., 1174. Rich, M. M. See Black, L. G.

Rich, W. R. See Wysocki, J.

Richard, J. G. See Jullien, A. Richards, E. T., [fuel] briquettes from light dust, B., 353. Failure of refractory melting-furnace bricks on softening and fusion, B., 1041. Impurities in lyc in production of electrolytic zinc, B., 110Ô.

Richards, F. J., and Templeman, W. G., plant nutrition. IV. Nitrogen metabolism in relation to nutrient deficiency and ago in leaves of barley, A., 908.

Richards, H., extraction of concentrates

from ores, etc., (P.), B., 603. Richards, K. L., ropiness in milk, B., 664. Richards, K. M., colours and pigments for plastics, B., 702. Phosphotungstic [colour] lakes, B., 1217.
Richards, O. W., stimulation of yeast

proliferation by pantothenic acid, A., 639. Richards, T. L. See Owen, E. A. Richards, W. T., formation and crystallis-

ation of vitreous media, A., 1055. Acoustical studies. V. Collisien Acoustical efficiencies of deuterium and hydrogen in exciting the lower vibrational states of ethylene, A., 1329. See also Strother, C. O.

Richards Chemical Works, Inc. Kaplan, P.

Richardson, A. P. See Hanzlik, P. J. Richardson, A. S., Vibrans, F. C., Andrews, J. T. R., and Procter & Gamble Co., composition of fatty matter and its stabilisation, (P.), B., 285.

Richardson, C. See Starr, D. Richardson, C. H. See Kagy, J. F.

Richardson, E. E. See Eastman Kodak Co. Richardson, E. G., photo-electric apparatus for delineating the size frequency curve of clays or dusts, A., 955. Velocitygradient methods in rheology, A., 1200.

Richardson, F. D. See Farquharson, J. Richardson, G. A., [detection of] gelatin [in dairy products], B., 1065.

Richardson, G. M., formaldehyde, alcohol, and acetone titrations, A., 91.

See also Fildes, P. Richardson, H. L. See Caldwell, J.

Richardson, H.O. W. See Leigh-Smith, A. Richardson, J. R., and Kurie, F. N. D., energy of the neutrons emitted from beryllium when bombarded by deuterons, A., 1173.

See also Kurie, F. N. D.

Richardson, L. R. See Hogan, A. G. Richardson, O. W., ground state of (H_2) , the molecular ion (H2+), and wave mechanics, A., 261.

Richardson, R., matches, (P.), B., 1069. Richardson, Russel, immunity in diabetes. II. Relative importance of nutritional state and of blood-sugar level in influencing development of the agglutinin after

typhoid vaccine, A., 752. Richardson, R. P. See Griffin, H. P. Richardson, R. S., and Chem. Construction

Corp., production of hydrogen and carbon black, (P.), B., 932.

Richardson, Robert W., presence of methyl alcehol in certain galenicals, B., 1017.

Richardson, Roger W. See Du Pont de Nemours & Co., E. I.

Richardson, T. See Haworth, R. D. Richardson, W. A., Higginbotham, R. S., and Farrow, F. D., reducing power and average molecular chain-length of starch and its hydrolysis products, and constitution of their aqueous pastes, A., 970. Richardson, W. D., control of coloration of

clayware in the tunnel kiln, B., 1153. Richardson Co. See Dillehay, E. R., and

Fisher, H. C.

Richardt, O. C. See Helm, E.

Riche, A. L., beryllium-copper used in electrical switch spring, B., 501.

Richert, T. G., hydrogen for the oil industry, B., 368. Richou, R. See Ramon, G.

Richter, volumetric determination of water in liquids and solids, B., 127.

Richter, A. A., absorber of CO₂ for currents of atmospheric air, A., 1225. Richter, C. See Jansen, W. H. Richter, C. P., increased salt appetite of

adrenalectomised rats, A., 1425.

Richter, D. See Hill, R.

Richter, D. A. See Ugnjatschev, N. J. Richter, G. See Bredereck, H.

Richter, G. A., pulping treatment and fibre

properties, B., 56. and Brown Co., bast fibres for papermaking and other purposes, (P.), B., 313. Impregnated articles, (P.), B., 314. Mercerised cellulose products, (P.), B., 450. Chemical pulping (P.), B., 450. Chemical pulping process, (P.), B., 636. Fibre articles, (P.), B., 927. Sized papers, (P.), B., 1088

Schur, M. O., and Brown Co., impregnated fibre articles or sheets, (P.), B., 1203.

Richter, H., significance of ions in gas-filled photo-cells, A., 445. Richter, H. E. See Kaatz, L.

Richter, J., chemistry in relation to wireless telegraphy, B., 699.

Richter, K. See Bünger, H.

Richter, Karl, influence of lithium chloride on Bact. coli. II., A., 113. Richter, O., effect of endocrine gland

secretions on adrenaline formation and content of the adrenals, A., 642.

Richter, P. O. See Fluke, C. L. Richtmyer, F. K. See Hirsh, F. R., jun.,

and Ramberg, E.

Richtmyer, R. D., probability of KLionisation and X-ray satellites, A., 399.

Rickert, H. F. See Alder, K. Rickertsen, E. See Guertler, W.

Rickey, J. W., hydro-power for production of aluminium, B., 1099.

Riekman, E., light-coloured enamels for direct application to ironware. (P.), B.,

Rico, J. T., and Baptista, A. M., inactivation of adrenaline by methylglyoxal, glyceraldeliyde, and acetaldeliyde, A., 116.

Rico Avello, G. C., ageing of oil used in benzol recovery, B., 773. Riddell, W. H., Whitnah, C. H., Hughes,

J. S., and Lienhardt, H. F., influence of the ration on vitamin-C content of milk, B., 1125.

See also Caulfield, W. J., and Whitnah, C. H.

Riddle, O., and Schooley, J. P., absence of follicle-stimulating hormone in pituitaries of young pigeons, A., 901.

Smith, G. C., Bates, R. W., Moran, C. S., and Lahr, E. L., action of anterior pituitary hormones on basal meta-bolism of normal and hypophysectomised pigeons and a paradoxical effect of temperature, A., 900.

Smith, G. C., and Moran, C. S., effects of complete and incomplete hypophysectomy on basal metabolism of pigeons, A., 884.

See also Bates, R. W.

Riddock, C. M., and Rourke, M. H., [artificial leather] material, (P.), B.,

Rideal, E. K., polymerisation and condensation, A., 272. Surface phenomena; films, A., 1458.

See also Belchetz, L., Farkas, A., Gee, G., Kingman, F. E. T., Melville, H. W., Russell, J. L., and Tucholski, T.

Ridenour, G. M., and Henderson, C. N., comparison of sewage purification by compressed air and mechanically aërated activated sludge. I. Purification and sludge-settling characteristics, B., 1238.

Ridenour, L. N., Shinohara, K., and Yost, D. M., disintegration of beryllium by photons and its possible bearing on the mass of ⁹Be, A., 1045. Chemical identification of the radioactive element produced from carbon by deuteron bombardment, A., 1174.

and Yost, D. M., absorption of slow neutrons in silver, A., 1441.

See also Sampson, \hat{M} . \hat{B} .

Rider, J. H., experience with fluorine in water, B., 126.

Rider, T. H., phenylcarbamates of aminopropanediols [anæsthetics], (P.), B., 1017.

and Merrell Co., W. S., ricinoleate medicament for internal use, (P.), B.,

See also Bambach, K., Cook, E. S., and Shelton, R. S.

Ridge, G. See Bonney, R. D.

Ridge, J., genesis of the tri-state zinc and lead ores, A., 1089.

Ridgion, J. M. See Ferrell, E. Ridgway, L. R. See Premier Waterproof & Rubber Co.

Ridgway, R. R., Klein, A. A., and O'Leary, W. J., preparation and properties of so-called β -alumina, B., 1091.

and Norton Co., abrasive metal carbides, (P.), B., 371. Crystalline alumina and composition containing it, (P.), B., 834.

Ridi, M. See Passerini, M.

Ridler, E. S. See Grasselli Chem. Co. Ridler, K. E. W. See Bowden, F. P.

Ridout, J. H. See Best, C. H.

Rieche, A., and Meister, R., small-scale experiments on autoxidation of ether, A., 312.

Riecke, R., producing a composite solution, aqueous emulsion, or plastic composition of bitumen and vulcanised rubber, (P.), B., 654.

Riedel, W., causes of adhesion [in road materials], B., 148.

Riedel-E. de Haën Akt.-Ges., J. D. fluorescent [zinc-cadmium sulphide] substance, (P.), B., 495. Depilatories, (P.), B., 1019.

and Seemann, J., fractionally condensing hydrogen peroxide vapours from mixtures with water vapour, (P.), B.,

1039.

Rieder, F., Wilson chamber studies of penetrating radiation on the Hafelkar

(2300 m.), near Innsbruck, A., 919.
Riederberger, (Mlle.) A. See Keval, B.
Riederle, K. See Grassmann, W.
Riedmiller, R., structure of thin metal layers, A., 1327.

Riegel, B., and Du Vigneaud, V., isolation of homocysteine; its conversion into a thiolactone, A., 194.

See also Butenandt, A.

Riegel, C., Elsom, K. O., and Ravdin, I. S., influence of sodium taurocholate, hepatic bile, and gall-bladder bile on absorption of oleic acid from the small intestine, A., 240.

and Rose, H. J., determination of free and combined cholesterol in bile, A.,

501.

Riegel Paper Corporation. See Bidwell, G. L.

Riegert, A. See Schwartz, A.

Riegler, R. See Nat. Aniline & Chem. Co. Riehl, N., stability of the Lenard light centres in zinc sulphide, A., 11. Laws of separation out of traces of foreign substances during crystallising out of precipitates, A., 1333.

Riehm, H., potentiometer for routine examination [of soils], B., 707. Rapid Kjeldahl determination of nitrogen [in

sugar factories], B., 1120.

Rieke, F. F., anomalous rotation of HgH molecules, A., 267. Transfer rotational energy in molecular collisions. I. Elementary processes which lead to abnormal rotation of the HgH molecule, A., 1176. Transfer of rotational energy, A., 1324.

Ricke, R., and Tanne, C., sintering and melting process in porcelain glazes, B.,

Riemenschneider, E. See Midland Steel Products Co.

Riemenschneider, R. W., and Ellis, N. R., component fatty acids of goat milk fat, A., 501. Effect of ingested cottonseed meal on distribution of constituent fatty acids of goat's milk, A., 1012.

Riemer, H., methods of feed-water treatment and their place in heat-flow of steam plants, B., 719. Reactions occurring in the boiler, B., 1071.

Rienacker, G., catalysis by alloys. I. Decomposition of formic acid vapour on copper-gold and silver-gold alloys,

and Dietz, W., catalytic investigation of alloys. II. Decomposition of formic acid vapour on copper-silver alloys, A., 1076.
Riep, F. E., linseed oil, B., 1003.
Ries, E. D. See Du Pont de Nemours &

stabilisation, B., 886.

Ries, H., use of sodium chloride in road

Ries, H. E., jun. See Harkins, W. D. Rieseh, L. C. See Sclar, M. Riesenfeld, E. H., and Chang, T. L., attempted enrichment of heavier water isotopes in ordinary water by fractional crystallisation, A., 944. Distribution of the heavy water isotopes on the earth, A., 957. Content of HDO and H₂O¹⁸ in rain and snow, A., 957. Vapour pressure. b.p., and heat of vaporisation of HDO and H₂O¹⁸, A., 1059. Vapour pressure and heat of vaporisation of heavy water, A., 1059. Effect on the fundamental units of volume and temperature of the variable isotopic composition of water, A., 1330.

and Müller, Friedrich, thermal decomposition of sugars and its catalytic

acceleration, A., 56.

Rieser, O. O. See Dillehay, E. R.Riess, C., determination of degree of olatiou in basic chrome-tanning liquors, B., 754.

Sce also Küntzel, A. Riess, W., analysis of dégras and moellon, B., 846. Rapid method of determining rosin in sulphonated oils, B., 846.

See also Schenck, H. Riesser, O., accelerating effect of pectin on blood coagulation, A., 1402.

and Nagel, A., determination of velocity of blood coagulation, A., 94. Acceleration of blood coagulation by acidic substances, especially pectin, A., 94.

Riesz, E., organio sulphur-nitrogen linking. VIII., A., 199.

Rietz, C. D., acid-base dissociation constants in mixtures, and their connexion with individual ion activities. I., A.,

Riezler, W., excitation of K-radiation of nitrogen, oxygen, and neon by alpha-

particles, A., 131.

Rigamonti, R., structure of the paraffin chain studied by means of electron rays, A., 784. Density and refractive index of the ternary systems watermethyl alcohol-n-propyl alcohol and water-n-propyl alcohol-isobutyl alcohol, A., 932.

See also Natta, G. Rigby, C. L., magnesite and magnesite

bricks, B., 643. Rigby, G. R., and Green, A. T., reversible thermal expansion of refractory materials, B., 60.

Rigby, J. H., humidity and its control in textile processes, B., 1145.

Rigby, R. See Bannister, C. O.

Rigg, G. B., and Dunsford, B., properties of kelp colloids, A., 258.
Rigg, J. G. See Hilditch, T. P., and

Imperial Chem. Industries.

Rigg, T., mineral contents of pastures; investigations of the Cawthron Institute, B., 665. Use of borax in the control of "internal cork" of

apples; preface, B., 1224. and Askew, H. O., bush sickness at Glenhope, Nelson, New Zealand, B., 613.

See also Askew, H. O.

Riggs, A. S., and Electrons, Inc., preparation of composite substances [for cathodes of thermionic valves], (P.), B.,

Rigler, N. E. [with Henze, H. R.], synthesis of compounds with hypnotic properties. I. Alkoxymethylhydantoins, A., 613.

Rigobello, G., choice of diet and production of experimental avitaminosis, A., 1428.

Rigoni, A. See Ficai, C.

Riiber, C. N., utilisation of molecular refraction for determining constitution and configuration of sugars. I., A., 1094.

Rikaleva, A. M. See Balabucha-Popzova, V. S.

Riker, A. J. See Keitt, G. W.

Riker, I. R., chlorinated iron solves odour nuisance and improves digester performance, B., 397.

Riko, S. See Kita, G.

Riley, G. A. See Rowe, A. W. Riley, G. H. See Spence, H.

Riley, H., preserved and dried yeast, (P.), B., 72. [Seed-]yeast [manufacture], (P.), B., 1064.

Riley, H. E., effect of chemicals on phenolresin bonded laminated [products], B.,

Riley, H. L., chemical nature of coke, B., 864.

and Gray, A. R., phenylglyoxal, A., 471.

See also Balfour, A. E., Ferrell, E., and Luke, K.D.

Riley, L. B., ore-body zoning, A., 1088. Riley Stoker Corporation. See Armour, J. W., and Daniels, F. H.

Rimarski, W., and Friedrich, H., dependence of gas absorption in acetylene cylinders on quantity of acetone, B., 818.

Rimington, C., Psilocaulon account.

N.E. Br., as a stock poison. II. Isolation of the toxic alkaloidal constituent and its identification as piperidine hydrochloride, B., 219.

See also Quin, J. I., and Steyn, D. G. Rimmer, B. I., connexion between resistivity to corrosion of magnesium-aluminium alloys, and the properties

of their surface films, B., 698. Rimpila, C. E., and Palmer, L. S., substances absorbed on fat globules in cream and their relation to churning.

IV. Factors influencing composition of the absorption "membrane," B., 664.

Rin, A. See To, S. Rinaldi, E. See Laporta, M.

Rinck, E., solidification diagram and electric conductivity of potassiumcæsium alloys, A., 1193. Ring, F. G. See Semet-Solvay Eng.

Corp.

Ring, G. C., calorigenic action of fat and carbohydrate in pancreatic diabetes, A., 231. Specific dynamic action of protein in pancreatic diabetes, A., 1407.

Ringard, H., and Duparque, A., microscopical characters of the Courrières coals, B., 1025.

Ringleben, O. See Krüger, W. Ringrose, A. T. See Norris, L. C.

Rinkes, I. J., partial oxidation of metathioxen, A., 861.

Rinman, E. L., treatment of aluminiumcontaining raw materials, (P.), B., 319. Hydrogen, (P.), B., 1151.

Rinn, H. W. See Hanawalt, J. D.

pines, A., 1035.

Rinoldi, how can colours which are too deep be corrected? B., 451.

Riou, P., and Delorme, J., lead index of maple and cane sugar, B., 900. Delorme, G., and Hormisdas, distribution of manganese and iron in Quebec

Ripan-Tilici, (Mme.) R., argentometric titration of halide, thiocyanate, selenoeyanate, and cyanate with adsorption indicators, A., 302. Determination of selenocyanides in presence of cyanides, A., 578. Gravimetric determination of selenates, A., 811. Potentiometric titration of selenocyanate, A., 1081.

Ripert, J., French pyrothrum, B., 852. Analysis of pyrethrum, B., 1068.

Ripley, L. B., and Petty, B. K., controlling wattle bagworm by dusting, B., 37.

Petty, B. K., and Hepburn, G. A.,
controlling wattle bagworm by salt,

as proposed by Henkel and Bayer, B., 37.

Ripner, J. J., refining of aluminium, (P.), B., 797.

Ripoll, P. See Oberhauser, F.

Rippel, A., and Behr, G., availability of nitrogen compounds eliminated by Aspergillus niger, A., 523.

Ripple, O. J., anthracite and sand as [water-]filter medium, B., 222.

Risch, K., effect of extreme cold on dyeaffinity of [viscose] rayon, B., 492. Rishov, V. P. See Kasehtanov, L. I.

Risi, A., carbonic acid and respiratory activity, A., 220. Action of oxidase of Cynara scolimus in decreasing the bloodsugar, A., 516. Electrolyte balance and cellular and refractometric changes in blood during pneumothorax and after phrenectomy, A., 1009.

Risi, J., and Gauvin, D., polymerisation. I. Formation, properties, and constitution of polyindenes, in particular " tri-indene." II. Properties, mechanism of formation, and constitution of di- and poly-styrenes, A., 196, 1239.

and Labrie, A., aromatic substances in maple sugar, A., 124. Rising, M. M. See Pierce, A. E.

Risler, J., immediate and prolonged antiseptic action of essential oils, B., 1177.

Risseghem, H. van, ay-disubstituted allene; $\Delta^{\beta\gamma}$ -hexadiene, A., 187. Action of micro-organism on diastercomeric forms of hexane-γδ-diol, A., 452. Preparation and properties of an aydisubstituted allene: $\Delta \beta \gamma$ -hexadiene, A., 587.

See also Gredy, (Mlle.) B. Ristic, J. See Funke, K.

Ristow, A., Daeves, K., and Schulz, E. H., influence of phosphorus on properties of basic unalloyed steel, B., 1209.

Ritchie, A. V. See McMillan, W. A. Ritchie, C. F. See Burke, W. E. Ritchie, W. S. See Hogan, A. G.

Ritov, S. M., diffraction of light by ultrasonic waves, A., 673.

Ritschl, R. See Stark, J.

Ritson, F. See Gas Chambers & Coke Ovens.

Rittenberg, D. See Schoenheimer, R. Rittenberg, S. C. See Crowell, W. R. Rittenhouse, G., geology of a portion of the Savant Lake area, Ontario, A., 1357.

Ritter, C. P. See Hoge, D. W.
Ritter, F. See Halla, F.
Ritter, F. O., purification of dimethylanille, B., 310.

Ritter, G. J., and Mitchell, R. L., modified Cross and Bevan method for determining cellulose in wood, B., 635.

Ritter, H. See Wienhaus, H. Ritter, J. J., and Russell, K. L., Grignard reaction on a-pinene oxide, A., 475.

Ritter, R. M., composition for mothproofing, (P.), B., 1090.

Ritter, W., fishy flavour in butter. I. Present position, B., 217.

and Christen, M., fishy flavour in butter. II. Metal content of cream and butter. III. Tallowiness in milk and cream due to metallic materials and the influence thereon of various substances. IV. " Reductobacterium frigidum " and the effect of bacterial activity on tallowiness, B., 217, 392.

Rittmann, R., and Magerl, J., effect of guanidine, synthalin, and "anticoman"

on muscle of cold-blooded animals, A., 375.

Ritz, J. See Grignard, V. Ritzau, G. See Masing, G.

Rius, A., and Quintero, L., electrodeposition of cadmium, B., 997.

Rivas, A. See Scheibe, G.
Rivat, G. See Brit. Celanese.
Rivenq, F. See Gire, G.
Rivero, M. D. See Ramirez, E.

Rivers, T. M. See Hughes, T. P.

Rivin, M., and Sokolik, A., explosive limits of gaseous mixtures. I. Explosion limits of mixtures of hydrogen and air, A., 1468.

Rivlin, I. I. See Nekritsch, M. I.

Rivoir, L., and Salvia, R., crystal structure of acetylnaphthazarin, A., 927. See also Palacios, J.

Rizov, S. M. See Danilov, S. N.

Rizzotti, G., colorimetric determination of morphine and its derivatives, A., 536. Chemical composition and pharmacological action of commercial solutions of heroin, B., 170.

Rjabtschikov, D. I. See Grünberg, A. A., and Zdanovski, A. B.

Rjabtzev, I. I., preparation of hydrogen by the continuous iron-steam process in a rotating oven, using Moscow-basin coal and burnt pyrites, B., 640.

and Koroleva, M. V., catalytic action of coke from Moscow-basin coals in cracking of methane-containing gases in presence of steam, B., 915.

See also Semenov, A. I.

Roach, W. A., tree injection; diagnosis and cure of chlorosis in a peach tree; invigoration by injection of fertilisers, B., 37. Leaf injection, B., 898.

See also Hearman, J., and Hulme, A. C. Roadhouse, C. L., and Henderson, J. L., flavours of milk and their control, B.,

Roadstrum, V. N. See Davis, G. A.

Roaf, D., disintegration of boron, A., 658. Robb, P. See Scharles, F. H.

Robbins, B. H., and Pratt, H. A., ether anæsthesia; changes in serum-potassium during and following anæsthesia, A., 516.

Robbins, C. L., effect of dinitrophenol on calcium and phosphorus metabolism, A., 106.

Robbins, R. C., and Bilger, L. N., sterol content and vitamin value of avocado oil, A., 117.

See also Miller, C. D.

Roberg, M., biology of Azotobacter. Filterability II. of Azotobacter. Nitrogen content of filtrates from Azotobacter cultures, A., 640.

Roberson, E. C. See Pearce, P. H.

Robert, C., and Wehrli, M., vapour pressure measurements on indium halides, A., 930.

Robert, F. Sec Maisin, J.

Robert, J. See Mutsaars, IV.

Robert, P., agglomeration of pulverulent materials, (P.), B., 256.

Roberti, G., hydrogenation of furfuraldehyde. I., A., 81. Anti-knock properties of liquid fuels, B., 133. Olive oil as lubricant, B., 819.

Roberts, A., Zandstra, T., Cortell, R., and Myers, F. E., variation of range with angle of the disintegration α -particles of ⁷Li, A., 918.

Roberts, A. A., [mobile] fuels, (P.), B., 137. Powdered fuel, (P.), B., 916. and Hackford, J. E., distillation of coal, (P.), B., 729.

Roberts, A. E., and Watkins, W., finishing [crease-proofing] of textile fabrics and yarns, (P.), B., 1036.
Roberts, A. H. Sco Du Bois, R.

Roberts, A. L., and Carruthers, J. C., U-tube method of measuring electrophoresis, A., 1224.

and Cobb, J. IV., behaviour of refractory materials under torsion at different

temperatures, B., 835.
Roberts, A. T., Paterson, J. H., and Amer. Murex Corp., welding rod, (P.), B., 554.

Roberts, C. H. M., and Tretolite Co., breaking of petroleum emulsions, (P.), B., 261, 486. Breaking of [water-inoil-type] petroleum emulsions, (P.), B., 868.

Roberts, D. B. Sce Faber, H. K.

Roberts, E., and Dawson, W. M., effect of Fowler's solution on animals, A., 377. Roberts, Eugene, and Western States

Machine Co., centrifugal basket construction, (P.), B., 81.
Roberts, E. N. See Standard Oil Co.
Roberts, E. W. Seo Owen, E. A.

Roberts, H. P., and Kreighbaum, H. S.,

phosphorus oxychloride, (P.), B., 642. Roberts, I., titration of chloride ion with mercuric nitrate solutions, using di-

phenylcarbazide indicator, A., 1351. Roberts, J., treatment of fuel by coloration, (P.), B., 259. Ignitability of solid fuels, B., 353. Ignition temperatures of solid fuels, B., 353. Determining ignition temperatures of solid fuels, B., 530. Natural carbonisation, B., 818.

Roberts, J. C., interaction of ethyl a-chloro-

crotonate and dimethylamine, A., 1236. Roberts, J. E., Whiddington, R., and Woodroofe, E. G., energy losses of electrons striking the nitrogen nucleus, A., 771.

See also Mayneord, W. V.

Roberts, John K., formula for rate of evaporation of adsorbed atoms and mols, A., 155. Adsorbed films of oxygen on tungsten, A., 282. Composite films of oxygen and hydrogen on tungsten, A., 282. Adsorption of hydrogen on tungsten, A., 282. Dissociation equilibrium of hydrogen and its adsorption on tungsten, A., 422. Adsorption of nitro-

gen on tungsten, A., 676.
Roberts, Joseph K. See Standard Oil Co.
Roberts, K. C., constituents of Hevea latex I; isolation and determination of constituents, B., 1008. Roberts, K. M. See Oliver, H.

Roberts, L. D., determination of radium in carnotite and pitchblende, B., 232.

Roberts, L. J. See Compere, E. L. Roberts, P. O., estimating properties of solid industrial fuel, B., 305.

Roberts, R. See Ladenburg, R.

Roberts, R. E., levels of meat scraps and dried milk in rations for young ducks, B., 1067.

and Carrick, C. W., reducing protein concentrates in rations of chicks at

different ages, B., 43.

Roberts, R. G., and Miller, C. O., proteins in liquid ammonia. III. Reaction of sodium in liquid ammonia with proteins and related substances, A., 492.

Tweedy, W. R., and Smullen, G. H. reactions of ammonolysed parathyroid hormone, A., 250.

See also Larrain, A. R.

Roberts, R. H., and Livingston, N., plant pigments and reproduction, A., 393. See also Hopkins, R. H.

Roberts, $R.\ T.$ See Western Electric Co. Roberts, $R.\ W.$ See Pierce, $I.\ T.$

Roberts, W. L., hydroxyl number and acetyl value of fats and oils, B., 1053.

Robertshaw, G. F. See Burton, D.

Robertson, A., and Rusby, G. L., synthesis of rotenone and its derivatives. VII. Tetrahydrotubaic acid. VIII. Netoric acid and toxicaric acid, A., 71, 481

See also Bell, (Miss) J. C., Flynn, D. G., Goodall, (Miss) I., Hilton, W., Howell, W. N., Mercer, D., and O'Donnell, R. W. H.

Robertson, D. W., lead titanate, B., 336. Exterior house-paint pigment combinations in relation to durability and

typo of injury, B., 380. and Jacobsen, A. E., physical study of two-coat paint systems, B., 702.

See also Gardner, R.
Robertson, H. F. See Carbide & Carbon Chem. Corp.

Robertson, I. M., agar and potassium chloride bridge for use with calomel half-cells, A., 1481.

and Stewart, A. B., mechanical shaker, B., 562.

See also Mitchell, R. L.

Robertson, J. D., effect of hæmorrhage of varying degree on blood and plasma volume, on blood-sugar, and on arterial

blood pressure, A., 495.

Robertson, J. M., molecular map of resorcinol, A., 16. X-Ray study of the phthalocyanines. II. Quantitative structure determination of the metalfree compound, A., 1186. Calculation of structure factors and summation of Fourier series in crystal analysis: noncentrosymmetrical projections, 1449.

Prasad, M., and Woodward, (Miss) I., X-ray analysis of the dibenzyl series. III. Structure of stilbene, tolane, and azobenzene, A., 784.

Robertson, W. E., and Tuck, V. L., value of sodium formaldehydesulphoxylate in mercury poisoning, A., 1149.

Robertson, W. T., significance of $p_{\rm II}$ putrefactive grade test in bacteriological water analysis, B., 478.

Robertson Co., H.H. See Young, J.H.

Robey, R. F. See Day, J. E. Robiette, A. G. E. See Birmingham Electric Furnaces, Ltd.

Robiette, A. R., continuous electric brazing in controlled atmospheres, B., 328.

Robinov, M. J., utilisation of rejected flax fibres, and of flax and cotton refuse for the paper industry, B., 636. Robinson, C., relationship between ζ -poten-

tial and stability in emulsions, A., 1200.

Robinson, C. S., and Payne, H. R., aspects of accident prevention in industry, B., 718.

Robinson, Charles S., Derivaux, R. C., and Hewell, B., factors affecting appearance and duration of glycosuria, A., 229.

See also Kraft, R. M.
Robinson, Clinton S., salt-plant design

and construction, B., 273.

Robinson, E. A., and Bogert, M. T., synthesis of substituted 5:6-benzoeinchoninic acids by the Doebner and Plitzinger reactions, A., 1520.

Robinson, H. A., spectra of phosphorus. Spectra of neutral and singly-ionised phosphorus, A., 397. Nobular spectra due to elements of the second period, A., 915. Spectral line intensity in the far ultra-violet and estimation of temperatures and pressures in vacuum are spectra, A., 916. Spectra Be III and Be IV, A., 1039. Spectra of phosphorus, P. II, P. III, P. IV, A., 1309.

Robinson, H. G. B. See Howell, O. R. Robinson, H. W., Price, J. W., and Cullen, G. E., acid-base condition of blood. Influence of protein concentration on the colorimetric pH determination of blood-

serum, A., 876. Robinson, J. D., Hester, W. F., and Röhm & Haas Co., condensation products of diisobutylene and polyhydric phenols,

(P.), B., 1143.

Robinson, J. E., and Amer. Can Co., composition for lining the ends of cans, (P.), B., 698.

Robinson, J. G., relative activity of accelerators [for vulcanisation of rubber], B.,

Robinson, M. See Parks, W. G.

Robinson, P., and Sprague Specialties Co., electrolytic condensers, (P.), B., 156. Electrolytic device [condenser], (P.), B., 460.

See also Du Pont de Nemours & Co., E. I. Robinson, P. D. See Morton & Co., R.

Robinson, P. L. See Cook, R. P.

Robinson, Richard, Christy, F. S., and Christy, N., refining molten metal [e.g., iron], (P.), B., 601.

Robinson, Robert, alkaloids, A., 491. Formation of anthocyanins in plants, A., 533. Synthesis of a natural colouring matter, A., 733.

and Smith, L. H., preparation of tetrahydrofurfuryl bromide and its reaction with magnesium, A., 478.

and Walker, J., synthesis of substances related to the sterols. VIII. A ketomethoxymethylhexahydrophenanthrene. IX., A., 472.

See also Achmatowicz, O., Ashton, R., Crowfoot, (Miss) D. M., Hawthorne, J. R., Hills, G. M., Peak, D. A., Raistrick, H., and Reynolds, (Miss) T. M.

Robinson, Richard A., and Mosettig, E., amino-alcohols derived from 1:2:3:4tetrahydrodibenzfuran, A., 733.

See also Mosettig, E.

Robinson, Robert A., dissociation constant of hydrochloric acid, A., 797. Composition of an intestinal concretion (enterolith) of a horse, A., 1286.

and Jones, R. S., activity coefficients of bivalent metal sulphates in aqueous solution from vapour-pressure measurements, A., 936.

and Peak, D. A., aluminium alkoxides

and their parachors, A., 14.

Robinson, R. H., supplementary solvents for removal of spray residue on apples,

and Hatch, M. B., volatility of spray oils in relation to [tree] injury, B., 248.

Robinson, R. J., and Putnam, G. L., determination of small amounts of potassium by means of silver cobaltinitrite, A., 951. Robinson, R. M. See Balfour, A. E.

Robinson, S. J., system of rosin size, alum, and fibre as related to problems in papersizing, B., 981.
Robinson, T., and Lancaster Asphalt, Inc.,

pulverisation of semi-solid materials.

(P.), B., 672.

See also Lancaster Processes, Inc.

Robinson, T. R. See Traub, H. P. Robinson, W. O., "brown" snowfall in New Hampshire and Vermont, A., 1086. Selenium content of wheat from various parts of the world, B., 809.

Robison, R., Law, K. A. O., and Rosenheim, A. H., deposition of strontium salts in hypertrophic cartilage in vitro, A., 514.

See also Law, K. A. O. Robison, S. C. See Konquest, A. L.

Robscheit-Robbins, F. S., Walden, G. B., and Whipple, G. H., blood regeneration in severe anamia: fractions of kidney, spleen, and heart compared with standard fractions, A., 504.

and Whipple, G. H., reserve store of hamoglobin-producing substances in growing dogs as influenced by diet, A., 233.

See also Daft, F. S.

Robson, A. O., steam-jacketed evaporating

pans, B., 431.

Robson, H. L. See Cunningham, G. L. Robson, J. M., action of cestrin on mammary secretion, A., 117. Action of ovarian hormones on uterine muscle measured in vivo and in vitro, A., 527.

See also Bell, G. H., and Hain, A. M. Robson, S. See Nat. Processes, Ltd.

Robson, W. See Boon, W. R., and Hill. E. M.

Robuschi, L., anticoagulants, A., 747. Mechanism of the action of irradiated ergosterol. I. Development of bone and its mineral content; calcæmia and phosphatæmia. II. Lipin content of bone, A., 1430.

Rocco, M. L., allantoinase in insects, A., 1150.

Rocha Filho, P., lacticinia; manufacture of "ricotta," B., 1230.

Rocha e Silva, M., action of sub-hamolysing doses of mercuric chloride on permeability of the erythrocyte, A., 745. Existence of an optimum concentration of eosin for photodynamic hæmolysis, A., 747.

Rochaix, A. See Morel, A.

Rochanapurananda, P., changes in composition of sprouting mungo seeds, A.,

Roche, A., isoelectric point of mucoproteins, A., 359. Micro-determination of serum-albumins and -globulins, A.,

Dorier, M., and Samuel, L., precipitation of serum-proteins by ammonium sulphate, A., 621, 874. Albumin/globulin ratio of normal and pathological human sera, A., 1008.

Roche, A., and Garcia, I., bone formation. I. Normal bone formation and the constitution of mineral reserves during development. II. Rickets in the growing rat, A., 1413.

and Marquet, F., micro-determination of protein-nitrogen in presence of

ammonium salts, A., 219.

and Roche, J., variations of osmotic pressure and of size of hamocyanin molecules during a long fast (in summer or hibernating) of varieties of Helix, A., 355. Solubility of hæmocyanins in saline solutions and specificity, A., 746. Physico-chemical properties of hemocyanins. Variation in osmotic pressure of hæmocyanin during prolonged inanition, A., 1529. See also Roche, J.

Roche, H., dry cleaning of rayon fabrics, B., 17. Extra-strong rayon yarns, B., 364. [Behaviour of] rayon fabrics

during laundering, B., 982.

Roche, J., hæmatin pigments of Actinia (actiniohæmatin) and cytochrome.b, A., 360. Muscular hæmoglobin and cytochrome, A., 624. Cytochromes. II. Hæmatinic pigments of Actinia:

actiniohamatin, A., 1012. and Bénévent, M. T., constitution of cytochrome-c, A., 247. Hæmatin of cytochrome-c and nature of combination of hæmatins with globins, A., 360. Hæmatins of cytochrome-a, A., 1287. Cellular hæmatins and cytochromes, A., 1534. Hæmatinand cytochrome-c; mobility of iron and combinations of hæmatins with a globin, A., 1534.

and Dubouloz, P., hæmocuprin from hæmocyanins, A., 874.

and Dumazert, C., blood-sugar of Cancer pagurus: nature of reducing substances and factors of variation of blood-sugar, A., 357.

and Raphaël, C., erythrocruorin (hæmoglobin) of the nervous system of Aphrodite, A., 624.

Roche, A., Adair, G. S., and Adair, (Mme.) M. E., osmotic equilibria of hemocyanin in a gravitational field, A., 92. See also Roche, A.

Roche, J. N., and Amer. Tar Products Co., composition of matter [disinfectant], (P.), B., 302.

See also Rhodes, E. O.

Rochelmeyer, H. See Dieterle, H. Rocher, H. Sco Dufraisse, C.

Rochester, G. D., band spectra of the lead halides, PbF and PbCl, A., 405.

Rochette, J. See Dubouloz, P.

Rochlin, S. See Juchnovski, G. Rocholl, H. See Lauber, H. J. Rock Island Register Co. See Burgess, J. J.

Rockaert, M., heat-treated mangesium alloy, B., 1159.

Rockmann, L. See Sturm, A. Rocquet, P. See Moureu, H. Rod, E. Sec Briner, E.

Rodalite Co., Inc. See Rother, F. Rodden, C. J. See Plantinga, O. S.

Roddis Lumber & Veneer Co. See Jones,

Rodebush, W. H., dipole moments of the alkali halides, A., 1182. Liquid state, A., 1189.

and Cooke, T. G., conductance of salt crystals, A., 138.

Rodebush, W. H., Murray, L. A., jun., and Bixler, M. E., dipole moments of alkali halides, A., 924.

See also Campbell, R. W.

Rodehüser, A., carbon dust in moulding sand, B., 1100.

Roden, P. von. See Werle, E.

Rodewald, Z., and Plazek, E., 3-aminopyridine. III. Iodination, A., 998.

See also Płażek, E.
Rodionov, V. M., Belov, V. N., and
Levtschenko, V. V., clectrosynthesis of aromatic carboxylic acids. I. Electrolysis of opianie acid, A., 722.

and Zvorykina, V. C., electrolysis of aromatic acids. II. Electrolysis of opianie acid, A., 1516.

Rodman, E. See Du Pont de Nemours & Co., E. I.

Rodman, I. P., and Lektophone Corp., colour photography, (P.), B., 763.

Rodolico, F., chemical composition of the eruptive rock of Cupaello (Ricti), A., 699.

Rodrigues, C., and Pacheco, G., biology of the pullorum-gallinarum group; differentiation of types of pullorum by maltose fermentation, A., 1561.

Rodriguez, A. See Oddo, G. Redriguez, D. F., apparatus for agglomerating or briquetting pulverulent coal and other granular substances, (P.), B., 1072.

Rodriguez, G. McDonald, J. A. See Hardy, F., and

Rodriguez-Olleros, A., variations of oxalæmia in liver diseases, A., 505.

Rodriguez Pire, L., reactivity of metal-lurgical coke, B., 772. Determination of lead in pyrites, B., 833.

Rodriguez Velasco, J., N-methylanilides, A., 1242.

and De la Borbolla, J. R., hydrolysis of acetyl and chloroacetyl chlorides, A., 940.

Rodt, R. V., what are "soil acid" and "moor acid"? B., 897.

Rodt, V., isotherms of the system calcium oxide-water, A., 1204. Determination of free calcium hydroxide in set cements and cement-trass mixtures, and of combined calcium hydroxide in cementtrass mixtures, B., 372.

Roduta, F. L., and Quibilan, G. A., roquipurple, a new indicator, A., 1478. Condensation reactions of 2:4-dinitrophenylhydrazine, A., 1510.

See also Stephens, H. N.

Roe, E. M. F. See Mayneord, W. V.

Roe, J. H., and Hudson, C. S., utilisation of d-mannoheptulose (d-marmoketoheptose) by adult rabbits, A., 370.

Röben, M., and Stern, M., phicophytin formation in leaf organs after temperature effects, A., 1164.

Roebling, W., and Tromnau, H. W., maxixe beryl. II. Analysis and separation of beryllium and aluminium and alkalis, A., 584.

Roebling's Sons Co., J. A. Sec Johnston, R. S.

Roebuck, J. R., Kelvin temperature of the

ice point, A., 1190. Röchling, R. See Zeller, M.

Röckling, H., smelting of low-grade German iron ores, B., 741. Roeder, E. See Harteck, P.

Roederer, E., nitrogen iodide, A., 439. Roediger, J. C., and Patent & Licensing

Corp., bituminous emulsion, (P.), B.,

Roehl, E. J., vapour pressures of saturated aqueous solutions; mono- and diammonium hydrogen phosphates, A., 1069.

Roehling, O. C. See Crist, R. H.

Roehm, G. H., vitamin- B_1 and $-B_2$ content of Arizona-grown grapefruit and broccoli, A., 905.

Röhm, O., polymerisation of acrylic esters, (P.), B., 207. Carrying out reactions for conversion of liquid materials into solid or semi-solid products, (P.), B., 576. Apparatus for carrying out reactions for conversion of liquid materials into solid or semi-solid products, (P.), B., 576. Polymerisation of unsaturated organic compounds, (P.), B., 1007.

Röhm & Haas Akt.-Ges., manufacture and use of aqueous vinyl resin dispersions or emulsions, (P.), B., 110. Removal of size dressing, etc., from textiles, (P.), B.,

189.

Röhm & Haas Co., cellulosic solutions and articles made therefrom or treated therewith, (P.), B., 142. Octylphenols and others thereof, (P.), B., 265. Ferric sulphate chloride containing water of crystallisation, (P.), B., 495. Condensation products from phenols, formaldehyde, and amines, (P.), B., 684. Recovery of hydrogen cyanide from coke-oven or other hydrogen sulphide-containing gases, (P.), B., 1139. Cellulose ethers, (P.), B., 1201. See also Bruson, H. A., Heckert, L. C.,

Hester, W. F., Powers, D. H., and Robinson, J. D.

Röhm & Haas Corporation. See Bartlett, P. G.

Roehrich, E. See Lampe, B. Röhrig, H., aluminium as construction material for chemical plant in Germany, B., 151. [Effect of] addition of inhibitors to solutions corroding aluminium, B., 327. Correct and faulty treatment of aluminium plant, B., 745. Additions to water which inhibit its attack on light metal, B., 996.

and Käpernick, E., recrystallisation of cast aluminium, B., 996. Examination of structure of resistance-welds in light [aluminium] alloys, B., 1160.

and Schönherr, K., influence of different concentrations of sodium chloride and hydrogen peroxide on results of rapid corrosion experiments, B., 1098. Tests on pure aluminium wire of uuusually high strength, B., 1159.

Roemmele, O., influence on yolk colour by feeding with synthetic and vegetable dyes; mimicry of egg shells, B., 811. Rönsberg, H. E. See Winterfeld, K.

Roepke, M. H., and Welch, A. D., [pharmacology of] choline and certain analogues. II. Cationic exchange as a means of reaction of choline, acetylcholine, and their analogues with cells, A., 633.

Rörig, W., decomposition of phosphate fertilisers in exchange-acid soils, B., 950.

Roesch, K., and Schleimer, O. J., articles from malleable cast iron, (P.), B., 329.

Röse, C., relation between minimum protein requirement and base content of human diet, A., 1289.

Rösler, R. See Steinkopf, W. Roesner, G. See Weidmann, H. Rösner, H., recovery of used oil, B., 7. Rössler, K. See Staudinger, H.

Rössler, R. See Antopol, W.

Rössner, K., mechanical technology of soaps. I. Cooling rollers and automatic band dryers in the manufacture of high-grade soap. II. Storing, weighing, and mixing of soap chips, B., 1105, 1215. Rötger, H. See Bennewitz, K.

Roetheli, B. E., treatment [weighting] of [silk and rayon] fibres, (P.), B., 788.

Roets, G. C. S. See Quin, J. I.

Roffey, F. See Dixon, T. J.
Roffe, A. E., mitogenetic radiations and Liesegang rings, A., 426.

See also Roffo, A. H.

Roffo, A. H., action of solar (ultra-violet) rays on the skin and formation of cholesterol, A., 105. Rôle of ultraviolet rays in development of cancer provoked by the sun, A., 626. Cholesterol ratio in living and necrotic neo-plastic tissue, A., 886. Heliotropism of cholesterol, A., 1149.

and Correa, L. M., relation of glycæmia to adrenal capsules and growth of

tumours, A., 882.

and Ramirez, R. L., pharmacodynamics of dyes with distinct electrical charges, A., 891.

and Roffo, A. E., emission spectra of cholesterol irradiated by sun- and ultra-violet light, A., 406.

Roganova, O. Sec Kiesel, A.
Rogel, A. C. Sec Carpenter, L. V.
Roger, J. P. See Trainer, J. E.
Rogers, A. F., tabulation of crystal forms and discussion of form-names, A., 273.

Rogers, A. O., and Nelson, R. E., reactions and derivatives of $\alpha\beta\gamma$ -trichloro- β -methylpropane, A., 962. Liquid-phase photochemical chlorination of tert.-butyl chloride and related compounds, A., 962.

Rogers, C. E. See Gutekunst, G. O. Rogers, D. A., and Atmospheric Nitrogen Corp., purification of gases [for ammonia

synthesis], (P.), B., 19.

Rogers, D. G. See Nat. Aniline & Chem.

Rogers, E. See Werder, J. F. Rogers, E. F. See Freudenberg, W.

Rogers, F. L., daily variation in sugar content of blood and urine during treatment of diabetes mellitus, A., 1015.

Rogers, F. M. See Standard Oil Co. Rogers, F. T., jun., precise measurement of three radium-B β -particle energies, A., 1313.

Rogers, G. See Davis, M. E.

Rogers, H. D., and Calamari, J. A., rotenone determination by colorimetric methods, B., 467. Colour reaction for rotenone, B., 1128.

Rogers, J., crop drying by artificial heat, B., 806.

Rogers, J. S. (Melbourne), absorption of γ-rays by barium sulphate, gypsum, water, and flesh, A., 5.

Rogers, Jerome S., [tannin analysis] specifications for tannin dishes, B., 947.

Rogers, (Miss) K. M. See Plant, S. G. P. Rogers, L. H., spectrographic micro-determination of zinc [in plant material], A.,

Rogers, R. H. See Gutekunst, G. O. Rogers, T. H., Wilson, R. E., and Gasoline Antioxidant Co., motor fuel product, (P.), B., 87.

Rogers, W. S., apparatus for measuring and controlling moisture of the soil and similar substances, (P.), B., 517.

Rogers Isinglass & Glue Co. See Murray,

Roginskaja, E. V., high-mol. wt. acids of the waxy fraction of peat bitumen, B.,

Roginski, S., and Schechter, A., reactions of atomic oxygen with halogen salts of mercury, A., 1210.

See also Ablezova, K., Charachorin, F., Lukin, A., and Motschan, I.

Roginski, S. Z. See Magid, A. M. Rogoff, J. M. See Schour, I.

Rogovin, S., and Glasman, S., physical heterogeneity of cellulose nitrates, and properties of fractions prepared from them. I., B., 184. Fractionation of cellulose esters, B., 979.

and Schliachover, destruction of cellulose in nitration and denitration, B., 829.

and Tichonov, K., nitration of cellulose.

IV. Effect of nitrogen oxides on nitration with nitric acid, B., 14.

See also Neumann, R.

Rogowski, W., electron attachment and ion formation in gases, A., 263.

and Wallraff, A., foreign ionisation and decrease of discharge potential in gases, A., 128.

Rogozinski, A., influence of the slit on distribution of intensities in the lines of a powder diagram, A., 412.

and Levin, B. S., action and hamolytic

dose of X-rays, A., 105.

Rogoziński, F., and Glowczyński, Z., irradiation and growth, A., 391. Nutritive value of the grain of canary grass, B., 346.

Rohde, G., effect of potassium on carbon assimilation in plants, A., 1034. Potassium and plant metabolism, with special reference to deficiency phenomena in potatoes, B., 514. Influence of deficiency of potassium on light intake of plants, B., 898.

Rohde, L., Wulff, P., and Schwindt, H., physical methods in chemical labor-XXXI. Determination of diatories. electric loss as a physico-chemical method of investigation, A., 1084.

Rohleder, T., fission of natural l-phosphoglyceric acid by muscle extract, A., 638. Rohmann, agents for alleviating pain, B.

Rohmann, C., and Ehlers, J. II., diacolation and filtration under pressure, A.,

and Scheurle, B., chemical constitution and local anæsthetic action of alkamine esters of p-alkoxybenzoic acids, A., 468. Physico-chemical properties and local anæsthetic action; surface tension, adsorption, and prevention of adsorption; flocculation of colloids and relative lipin-solubility, A., 756.

Rohmer, P., Bezssonoff, N., and Stoerr, E., incapacity of the animal to store reserves of vitamin-C, A., 646. Synthesis of vitamin-C in the organism of the suckling infant. II., A., 646. Particularly high vitamin-C content of the cerebrospinal fluid in the prematurely and normally new-born, A., 647.

Rohn, W., and Ginger, J. E. W., electric annealing furnaces and their heating

elements, B., 891.

and Heraeus-Vacuumschmelze Akt.-Ges .. beryllium alloys, (P.), B., 1162. Sec also Grunert, A., and Heraeus-

Vacuumschmelze Akt.-Ges. Rohn, W. J. P., melting and casting metals

in vacuo, B., 889. Rohner, L. V. See Kniskern, W. H.

Rohrman, E. See Williams, R. J.

Rohrman, F. A., metals and alloys in the chemical industry. I. Introduction and theory. III. Non-ferrous metals and alloys, B., 550, 599.

See also Eddy, J. Rohrmann, W. See Jost, W., and Komppa,

Rohs, H. L. See Gilkey, W. K.

Roich, I. L., intensity measurements in the ultra-violet with the aid of the photon counter, A., 2.

Roig, J., photographic method for determining distribution of light intensity in interference rings, A., 399. Temperature of helium in the high-frequency discharge, A., 655.

and Thouvenin, J., variation of the optical density of photographic plates with the conditions of drying, B., 909.

Roiter, V., Gauchmann, S., and Leperson, M., adsorption of hydrogen and nitrogen on iron-molybdenum ammonia catalysts, A., 1457.

and Jusa, V., kinetics of the process at the iron anode of a galvanic element,

A., 1472.

Rojahn, C. A., behaviour of drugs at high oxidation potentials; Tillmans' chlor-

amine value, B., 75. and Fachmann, W., pharmaceutical analysis: determination of morphine in aqueous dialysed extracts of unripe poppy heads ("paverisat Bürger"), B., 347.

and Kashyap, O. P., suggested new characteristics for evaluation of pharmaceutical drugs, B., 170.

Rojansky, V., possibility of a unified interpretation of electrons and protons,

Rokits'aja, A., microbiological and fermentative methods for treatment of straw, B., 385.

Rokusho, B., acetone-butanol ferment-ation. IX. Isolation of organism, A., 1300.

Roland, G. See Decoux, L. Roleson, E. P. See Ash, C. S. Rolfe, R. T. See Poole, W. G.

Roll, J., influencing chemical and physical character of blast-furnace slags, (P.), B., 503.

See also Kreide, R.

Rolland, $J_{\cdot,\cdot}$ influence of bleaching and dyeing conditions on light-fastness of dyed cellulose acetate matt silk, B., 188. Dyeing and printing of acetate rayon, B., 590.

Rollason, E. C., estimating cupola mixtures, B., 792.

and Bamford, T. G., temper-hardening of commercial nickel-coppers containing phosphorus, B., 278.

Rollefson, A. H. See Rollefson, R.

Rollefson, G. K. See Faull, R. F., and Krauskopf, K. B.

Rollefson, R., and Rollefson, A. H., index of refraction of HCl from 1 to 10 μ , A., 13. Optical dispersion of HCl in the infra-red, A., 140.

Rollens, R. C., California sardine oil, B., 701.

Roller, D. See Hitzenberger, K., and Townes, E.

Roller, E. M. See Adams, J. E. Roller, P. S., seasoning of Portland cement at elevated temperature, B., 695. Apparatus for fractionating finely-divided material, (P.), B., 1023.

Rolleston, L. O. See Campbell, John. Rollet, A. P., polymorphism of potassium pentaborate, $K_2O_5B_2O_3$, A., 928. Rollin, B. V., combined hydrogen and

helium liquefier, A., 304. See also Jones, R. V., and Kürti, N.

Rollwagen, W., and Ruthardt, K., spectralanalytical determination of arsenic. phosphorus, and sulphur in metals, particularly platinum, B., 375. See also Gentner, K.

Rom, P., methoxyl number of fennel oil, B., 76.

Román, J. H. See Catalán, M. A. Roman, W. Seo Krüger, Deodata.

Romann, R., and Speitel, C., spectrophotometric determination of potassium

chloride in sylvines, A., 178.

Romanoff, A. L., and Grover, H. J., electrical conductivity of yolk, albumin, and allantoic and amniotic fluids of developing birds' eggs, A., 877.

Romanov, M. M. See Ver, O. I.
Romanov, M. S. See Kosmin, N. P.
Romanov, R. P. See Markovitsch, M. B.
Romanova, P. M. See Zilberman, G. M. Romantschuk, M. A. Seo Kaplan, S. I., and Kireev, V. A.

Romantschuk, N. M. See Fomin, S. V.

Romberg, W., lower limit of the helium ground state calculated by Ritzsch's method, A., 543. Romeis, B., Wüst, J., and Wimmer, J.,

biologically active radiation. Supposed photographic detection earth rays according to Dobler, A., 1320. Romell, L. G., aëration of soil, B., 71.

Romhányi, J., and Schmidt, Martha, iron metabolism in cancer, A., 751.

Romijn, C., digestive enzymes in cephalopods, A., 895.

Romoli-Venturi, D., and Pugliese, A., chemical constitution and biological properties of lipins in the carrot, A., 912.

Rompe, R., discharge in tellurium vapour, A., 1168.

See also Gen. Electric Co., and Pirani. M. Rompler Akt.-Ges., J. See Grunzig, W.

Romwalter, A., collision effects in mechanical analysis by Odén's method, A., 576. Rôle of beryllium oxide in sodaflux treatment of bauxites, B., 18. See also Széki, J.

Rona, E., and Neuninger, E., artificial activation of thorium by neutrons, A., 1046.

See also Karlik, B.

Ronald, D., and Wylam, B., protective coatings on exposed surfaces of steelor iron-work, (P.), B., 1047.

Roncallo, E. See Martini, E., and Viale,

Ronceray, P., iron, even when impure, is not oxidised in salt solutions, A., 174. Iron, even when impure, is not oxidised at the ordinary temperature in pure distilled and acrated water, A., 174. Iron, when impure but rigorously freed from surface contamination, does not effervesce in dilute acids, A., 174. Zinc, even impure but perfectly smooth and without external contamination, does not effervesce with dilute acids, A., 439. Aluminium, even impure but perfectly smooth and without external contamination, does not effervesce with dilute acids, A., 439. Polished iron, even impure, does not oxidise in saturated moist air, A., 441.

Ronceray, P., theory agrees with experimental results concerning intrinsic and extrinsic impurities in metals immersed in dilute acids, A., 1079. Antagonisms and alliances, experimentally demonstrated in effervescent and silent corrosion of aluminium, zinc, iron, tin, and load in dilute acids, are of electrical nature, A., 1079. [Reaction of lead with dilute acids], A., 1079. [Reaction of tin with dilute acids], A., 1079. By their antagonisms and alliances, corrosion reactions tend towards a maximum or a minimum, A., 1079. Steel, partly tinned and polished, does not effervesce with dilute acids, A., 1080. Concentrated copper sulphate solution gives on impure iron, polished and deprived of active dust, a phenomenon recalling that of Evans for rust, A., 1216. The Evans effect is produced on impure iron and is caused by active dust, Å., 1218.

Ronci, V. L. See Standard Telephone & Cables. Rondberg, C. J., treatment of raw rubber, B., 1168.

Rondolino, R., epidotite from Acceglio (Valle Maira), A., 1357.

Rondoni, P., Carminati, V., and Corbellini, A., production in vitro of estrogenic substances from organs, A., 1156.

Ronsdorf, L., action of growth-substances on growth of fungi, A., 523.

Ronzio, A. R., semi-micro-method of analysis for nitrogen, A., 578.

Ronzone, P. E., Chineso cotton[seed] oil, B., 1054.

Ronzoni, E., and Ehrenfest, E., effect of dinitrophenol on metabolism of frog muscle, A., 1550.

Roof, J. G. See Blacet, F. E. Rooke, H. S. See Lampitt, L. H.

Rooksby, H. P. See Gen. Electric Co.

Roos, C. K., and U.S. Gypsum Co., soundabsorbing compositions, (P.), B., 149. Gypsum plaster, (P.), B., 596. Cementitious material, (P.), B., 992.

Roos, G. Sec Jongmans, W. J. Roos, W. C., washing of sugar in centri-

fugals, B., 711. Rooyen, $C.\ O.\ van.$ See Grieg, $E.\ D.\ W.$ Roques, H. See Fourment, P.

Roques, M., relations of amphibolites and peridotites at Sarrazac (Dordogne), A., 448.

Rordorf, G., souring of desizing liquors, B., 492.

Ros, M., and Eichinger, A., mechanical properties of steels at high temperatures, B., 742.

Rosa, G. See Aliverti, G. Rosahn, P. D., serum-phosphatase in normal young rabbits, A., 896.

Rosanov, D. I. See Favorski, A. E., and Salkind, J. S.

Rosanov, K. M., decarboxylation of aminoacids by tissues, A., 1017.

Rosanov, S. N., Markova, G. A., and Fedotova, E. A., determination of iron in phosphorites and apatites by the colorimetric method using sulphosalicylic acid, B., 144.

Roschdestvenski, D. See Rehbinder, P. Roscher, A. F., relation between mortar strength of cement and crushing strength of plastic concrete, B., 148.

Roschier, H., transparency of cellulose, B.,

Roscoe, M. H., B-vitamins in human urine, A., 904.

Roscoe, R., plastic deformation of cadmium single crystals, A., 415.

Rosdahl, K. G. See Eisler, B. Rosdorff, E. See Nord, F. F.

Rose, A., determination and analysis of the thermionic constants of thoriated tungsten, A., 917.

Rose, Arthur, distillation efficiency in 3- and 6-mm. fractionating columns, B., 1183. Rose, C. C., Sears, R. E., and Willard Storage Battery Co., red lead, (P.), B.,

Rose, C. F. M., determination of chloride in body-fluids by direct titration, A.,

Rose, C. H., and Bolley, D. S., softening of linseed oil films, B., 335.

Rose, C. L. See Chen, K. K.

Rosé, E. See Violle, H.

Rose, F. See Balamuth, L. Rose, F. C., variation of the adiabatic elastic moduli of rock-salt between 80° and 270° abs., A., 276.

Rose, F. L. Sco Imperial Chem. Industries. Rose, F. W., jun. Sce Mair, B. J. Rose, H. J. Sce Riegel, C.

Rose, J. L., and Stranathan, R. K., isotopic constitution of lead from hyperfine structure, A., 1043.

Rose, M. E., possible effect of screening in theory of β -disintegration, A., 772. See also Pauli, W.

Rose, M. S. See Funnell, E. II., and Vahlteich, E. McC.

Rose, R. C., and Anderson, John Ansel, fractionation of barley and malt proteins. A., 652.

Rose, W. C. See McCoy, R. H., Meyer, C. E., and Womack, M.

Roseberry, H. H., and Bearden, J. A., effects of chemical composition on X-ray lines, A., 1169. See also Bearden, J. A.

Rosebury, F., simple comparator for absorption spectrograms, A., 445.

Roselius, H. D., coffee-packing process based on use of venting closures, B., 761.

Rosell, D. Z., and Argüelles, A. S., soils of Tagaytay ridge, Cavite, B., 113.

Rosell, J. M., fresh cream cheese, B., 856. Soft cheese, B., 1015.

Roselli, (Signa.) J. See Pirrone, F. Rosello, J. F. P. See Vallery, P. L. L. Roseman, R. See Katzoff, S.

Rosen, B., and Bouffloux, F., molecular spectra of the sulphur group, A., 1309. Désirant, M., and Duchesne, J., predissociation in sulphur bands, A., 127.

Désirant, M., and Neven, L., origin of the broad bands in selenium and tellurium vapours, A., 654.

and Monfort, F., spectrum of selenium in the red and photographic infra-red, A., 654. New system of bands of Sc. in the red, A., 654.

and Neven, L., absorption of sulphur vapour between 3600 and 5000 A., A., 1437.

See also Goldfinger, P.

Rosen, N. See Hirschfelder, J.

See Standard Oil Develop-Rosen, R. ment Co.

Rosenbaum, E., examination of baker's year, B., 166. Foreign baker's year, B., 167.

Rosenbaum, M. See Langley, W. D. Rosenbaum, M. G. See Langley, W. D. Rosenberg, A. See Auger, P., and Krollpfeiffer, F.

Rosenberg, A. H., recovery of silk from knit goods, (P.), B., 95.

Rosenberg, H., treatment of metal work, (P.), B., 698.

Rosenberg, H. R. See Ruzicka, L.

Rosenberg, J., seasonal differences in the fat and protein content of nerve tissue of the frog, A., 623. Metabolism of nerve-tissue of the frog during rest and

stimulation, A., 627.
Rosenberg, J. E., and Hommel Co., O., enamel ware, (P.), B., 990.

and Langerman, A., method and apparatus for studying the physical properties of vitreous enamels on steel, B., 454.

Rosenberg, M., treatment of tobacco, (P.), B., 468.

Rosenberg, S. See Steacie, E. W. R. Rosenblad, C., waste-heat recovery from intermittent sources such as gases and vapours in the chemical industry, B., 719.

Rosenblatt, M. B. See Steinbach, M. M. Rosenblatt, S. Seo Ksilan, A.

Rosenblüh-Roboz, E., soil reaction and sugar beets, B., 1172.

and Vavrinecz, G., iodometric determination of copper in sugar and other liquids containing organic substances, B., 388. Iodometric determination of copper in presence of sugar, B., 1120.

Rosenblueth, A., and Cannon, W. B., chemical mediation of sympathetic vasodilator nerve impulses, A., 232.

Lindsley, D. B., and Morison, R. S., decurarising substances, A., 1416. See also Cannon, W. B., and Liu, A. C. Rosenblum, C. See Kolthoff, I. M.

Rosenblum, I., [modified alkyd] synthetic resins and coating compositions therewith, (P.), B., 511. Pretreated natural resin and its utilisation, (P.), B., 653. Mixed ester [alkyd] resin, (P.), B., 704. Polyhydrie alcohol-polybasie acid type resins, (P.), B., 1167.

Rosenblum, S_{-} , existence of the a_5 radiation and separation of the magnetic spectrum of thorium-C into two series, A., 657.

Guillot, M., and Perey, (Mlle.) M., intensity of fine-structure groups in a-ray magnetic spectra of radioactinium and its products, A., 657.

Rosenbohm, A. See Bierich, R. Rosenbohm, E., and Jaeger, F. M., measurement of electrical resistance of metals as function of the temperature by means of a twin galvanometer with photographic recording, A., 672. Localisation of transition points of allotropic metals by method of Saladin and Le Chatelier, A., 672. Determination of therme-electrical force of metals in a vacuum by a photographically recording double galvanometer, A., 928.

See also Jaeger, F. M.

Rosencrants, F. H., improved Murray-Waern system of chemical and wasteheat recovery [from sulphite-cellulosc waste liquor], B., 689.
Rosenfeld, A. D., and Kolesnikov, D. G.,

l-peganine from the blossoms and stems of Peganum harmala, L., A., 1394. Rosenfeld, P. See Redlich, O.

Rosenfeld, S., jun. See Smith, Clayton S. Rosenfels, R. S., absorption and accumulation of potassium bromide by Elodea as related to respiration, A., 394. Rosenheim, A. H. See Robison, R.

Rosenholtz, J. L., and Smith, D. T., dielectric constant of mineral powders, A., 700.

Rosenkevitsch, L., Forjaz's effect, A., 1073. See also Kara, I.

Rosenkranz, E., and Hüttig, G. F., active oxides. XCVII. A crystallised basic aluminium sulphite, Al₂O₃, 2SO₂, H₂O, A., 441.

Rosenman, E. See Necheles, H. Rosenmann, M., fibrinolysis. V., A., 1556. Rosenmund, K. W., relationship between dielectric polarisation and pharmacological action, A., 105.

and Külz, F., aliphatic-aromatic amines, (P.), B., 907.

See also Herold, W.

Rosensteil & Co., paraffin-coated paper, (P.), B., 927.

Rosenstein, L. Seo Barrett Co., Bataafsche

Petroleum Maats., and Shell Development Co.

Rosenthal, E., determination of vitamin-A in body-fluids, A., 253.

Rosenthal, F., Friedheim, I., and Nagel, R., insulin-decomposing power of crythrocytes, A., 1282.

Rosenthal, Gerhard, and Trantwein, H., can intact monoglycerides be resorbed? A., 510.

Rosenthal, Gottfried, photo-effect for thin layers of aluminium and tantalum oxide, A., 779.

Rosenthal, (Miss) J. E., vibrations of tetrahedral pentatomic molecules. General criteria for potential functions,

and Voge, H. II., normal vibration frequencies of the molecule XYZ3, A., 411.

See also Voge, H. H.

Rosenthal, K. See Vogel, R.

Rosenthal, O., effect of standard diet on liver metabolism in experimental avitaminosis-A in rats, A., 389. Metabolism of rat liver in avitaminosis-A, A., 389. Sec also De Ruyter, T. H., and Las-

nitzki, A.

Rosenthal, S. M., antidote for acute mercury poisoning, A., 108.

Rosenthaler, L., coloured and dyed crystalline precipitates, A., 812. Crystallisation of vitamin- B_1 , A., 1566. Rôle of microchemistry in pharmacy, B., 170. Galenical preparations. III. Fowler's solution, B., 252. Jamaica and Madagascar kola, B., 570.

Rosenzweig, S., guaiacol compounds, (P.), B., 1234.

Roseveare, W. E. Sec Rau, D., and Sinness, L. S.

Roshdestvenski, A. P., plastic masses from wood-pulp waste, B., 205.

Roshevski, L. S., Delle, V. A., and Kaza-kova, N. V., ability of solid solution in steel to supercool and method of studying its decomposition, B., 411.

Rosicky, V., origin of tektite surfaces, A., 1227.

Rosin, J., and Williams, C. J., opium assay,

B., 347. Rosin, P. O., aërodynamics as a basis of modern fuel practice, B., 625.

and Rammler, E., drying of coal, B., 964.

Roskin, G., action of medicinal substances on the cell, A., 249. Rosliakova, E. N. See Pamillov, A. V.

Rosnell, J. E. See Texas Co.

Rosner, A., and Bendix Brake Co., friction material, (P.), B., 529.

Rosner, L, and Bellows, J., ascorbic acid oxidase in determining vitamin-C in lens and aqueous humour, A., 1430.

Ross, A., and Rabinovitsch, I. M., copper content of urine of normal children, A.,

Ross, C. S., mineralisation of the Virginia titanium deposits, A., 817. Copper deposits of the Southern Appalachian

region, A., 1357.

Ross, C. W., impaired glucose tolerance in certain alimentary disorders of childhood: treatment with liver extract, A., 1407. Intestinal absorption in coliac disease; effect of liver extracts on carbohydrate metabolism, A., 1407.

Ross, J. D. M., m.-p. eurves of optical

isomerides, A., 822. and Morrison, T. J., acid salts of monobasic organic acids. II. r-Mandelic acid, A., 937.

Ross, J. E., Johnson, R. L., and Edgar, R., degradation of weighted silk fibroin by acid and alkali, B., 367.

Ross, J. R., and Summerfeldt, P., value of increased supply of vitamin- B_1 and iron in diet of children. II., A., 765.

Ross, M. See Hope, II. B. Ross, P.A. See Bloch, F.

Ross, S. See Barnes, W. H. Ross, W. F. See Bergmann, M. Ross, W. H. See Mehring, A. L.

Ross-Tacony Crucible Co. See Buck, K. E. Rossée, W. See Hilpert, R. S. Rossem, W. J. van, Harrison, L. E., and

Oramold Products Corp., kneading or

mixing device, (P.), B., 176. Rossi, A., phosphatase of bones, A., 1299. Rossi, B. See Foschini, A., and Valle, G. Rossi, F., vitamins and cultures in vitro. I. Action of vitamin-B on embryonal

tissue cultures, A., 764.

Rossi, Giacomo [with Riccardo, S., Gesuè, G., Stanganelli, M., and Wang, T. K.], direct microscopical and bacteriological examination of soil, B., 291.

Rossi, Giuseppe, action of sulphur monochloride on fatty oils, B., 1004. and Marescotti, A., syneresis. II., A., 935.

and Scandellari, G., syneresis. III., A., 1338.

Rossi, L., Del Boca, A. D., and Lobo, R., specific reaction for yohimbine, A., 219.

and Sozzi, J. A., differentiating between quinine and quinidine, B., 170.

Rossi, P., blood-urea and Brucella infection in horses, A., 504. Blood-urea in botul-

ism of cattle, A., 504. Rossichin, V. S. See Malinovski, A. E. Rossier, P., width of stellar hydrogen lines, A., 1309. Photographic effective wave-length, A., 1311.

Rossini, A., action of Viterbo sulphurous water on germination and on activity of the epithelium of frog's œsophagus, A., 372.

Rossini, F. D., difference in heats of formation of the two isomerides of butane; heat of formation of tetramethylmethane, A., 31. Heat of combustion of isobutane, A., 291. Chemical constituents of gasoline separated in A.P.I. project, B., 727. Rossinskaja, I. M. See Korshev, P. P.

Rossman, A. M., and Rossman Eng. Co., kiln and heating device, (P.), B., 1094.

Rossman Engineering Co. See Rossman, A. M.

Rossoni, P. See Pirrone, F.

Rost, C. O., characteristics of morphological solonotz soils of Minnesota, B.,

Rost, F., and Doro, B., sesquiterpenes from male myrrh and its detection, B., 619. Rostagni, A., effective cross-section and

charging cross-section of helium with respect to Ho⁺, A., 4. Positive and neutral rays. III. Ionisation by atomic collision. IV. Effective cross-sections for neutralisation, A., 539, 1312. Absorption and diffusion of positive rays in gases, A., 1312.

Rostomian, P. M., brazing hard alloys by means of alternating current, B., 551.

Rostone Inc. See Jones, P. W.
Rostovtzev, S. T., and Meerov, S. M.,
agglomeration of Krivorog iron ores, B., 21.

Rostovtzeva, E., velocity of diazotation, A., 601. Diacetyl derivative of 2:6tolylonediamine, A., 1243.

See also Korulev, A.

Rostovtzeva, K., velocity of diazotisation,

Rotationsfeuerungspatentges.m.b.H. Bachler, G.

Rotblat, J., ranges of particles emitted in disintegration of boron and lithium by slow neutrons, A., 1045. Resonance levels for absorption of neutrons, A., 1314.

and Zyw, M., effect of scattering neutrons on induced radio-activity, A., 402.

Rotenberg, I. A., and Favorskaja, M. A., preparation of β -ethoxy- $\Delta^{\alpha\gamma}$ -butadiene and β -methoxy- $\Delta^{\beta\gamma}$ -but adiene and their polymerisation, A., 964. See also Tziurich, L. G.

Rotermund, M. A. See Union Carbide & Carbon Res. Labs.

Roth, E. E., highly dilute flames of K-I2, A., 272.

Roth, H. See Damboviceanu, A. Roth, K. See Mannich, C. Roth, W. A., calorimetric apparatus, A., 304.

Roth, W. See Westinghouse Electric & Manufg. Co.

Roth, W. A., and Pahlke, H., secondary calibration substance for combustion calorimeter for gases and vapours; heat of combustion of isopentane vapour, A., 1205.

Rothbart, II. B., basal metabolism in children of normal and subnormal intelligence; blood-cholesterol -creatinine values, A., 367.

Rothberger, C. J. See Gottdenker, F. Rothé, E., and Hée, (Mme.) A., radiometric prospecting of a [volcanic] flow of rhyolite, A., 51.

Rothe, H. See Plato, G.

Rothemund, P., occurrence of decomposition products of chlorophyll. III. Isolation of pyrroporphyrin from ox bile, A., 213. Porphyrin synthesis; synthesis of porphin, A., 740. See also Albers, V. M.

Rothen, A. See Jacobs, W. A., and Lovene, P. A. Rother, F., suppression-layer photocells, (P.), B., 1002.

gas-filled electric and Rodalite Co., lamp, (P.), B., 1002.

Rother, P., and Grau, G., determination of percentage of water in wood, textiles, and other substances, (P.), B., 722.

Rotherham, L. See Andrade, E. N. da C. Rothert, H., Schiebler filter, B., 863.

Rothfuchs, G., dense (cavity-free) asphalt and bitumen mixtures, B., 773.

Rothrock, H. S. See Du Pont de Nemours & Co., E. I.

Rothschild, S., sensitisation of phosphors. II., A., 1445.

Rothstein, B., odour and constitution: y-substituted y-butyrolactones, A., 54. Rothstein, I. A. See Bullowa, J. G. M.

Rotinjantz, L. A., and Tarajan, V., purification of solutions of copper sulphate, A., 944.

Rotter, G., Holden, F., Burden, W. M., Hazel, H. H., and Hammond, L. J. L., manufacture of explosives, (P.), B.,

See also Burden, W.M.

Rottgardt, J. See Kurzke, H. Rottier, P. B., growth curves of Polytoma uvella: effect of oxygenation, A., 897.

Rottmayr, F. See Sutter, H. Rotzeig, B. See Fuchs, N.

Roubault, M., radioactivity of natural springs in the Kabylie de Collo (Con-

stantine, Algeria), A., 1086. Roughton, F. J. W., thermochemistry of the oxygen-hæmoglobin reaction. I. Direct measurements of heat of reaction, A., 91. Carbhiemoglobin, A., 1007. Photo-electric methods of measuring the velocity of rapid reactions. II. Simple apparatus for rapid p_{Π} and other changes requiring 200 e.c. or more of each reagent, A., 1224.

and Millikan, G. A., photo-electric methods of measuring the velocity of rapid reactions. I. General principles and controls, A., 1224.

See also Bateman, J. B. Rouillard, (Mlle.) C. See Geloso, M. Rouilly, $M_{\cdot,\cdot}$ condensation of vapours mixed with gases, B., 768.

See also Kling, A.

Roulleau, J., determination of the metalcuprous oxide contact resistance, A., 139. Influence of temperature on photoelectric effect of the metal-cuprous oxide interface, A., 548. Barrier layers and photo-electricity, A., 697.

Roulleau, M., spectral transmission of developed photographic emulsions, A., 1084. Influence of temperature on sensitivity of rapid photographic emulsions,

B., 572.

Rouquès, L. See Guillain, G. Rourke, M. H. See Riddock, C. M. Rous, P., and Kidd, J. G., carcinogenic effect of a virus on tarred skin, A., 1014.

Rousseau, E. See Sauvageot, M. Roussel, G. See Gruzewska, Z.

Rousselot, L. See Schoenheimer, R.

Rousset, A., molecular scattering of light: Cabannes-Daure effect, critical opalescence of binary mixtures, 269. Polarisation in molecular dif-fusion spectrum of liquid carbon tetrachloride, A., 546.

See also Cabannes, JRoussy, G., Oberling, G., and Guérin, M., carcinogenic action of thorium dioxide in the white rat, A., 504.

Roustchinsky, A., light-coloured coumaronoid resins, B., 30.

Routala, O., determination of sulphurous acid and sulphuric acid in roaster gases, B., 318.

and Parpola, A., origin of carbon dioxide in sulphite [pulp] cooking, B., 735. and Salomaa, J. E., effect of repeated

machine-laundering on textile materials, B., 315.

Rouvé, A. See Stoll, M.

Roux, H. See Chevallier, A. Roux, L. L., Murray, G. N., and Schutte, D. J., effect of type of feed on solids-notfat content of milk, A., 501; B., 426.

Rouzaut, R., analysis of Argentine grapestone oil, B., 204.

Rovenskaja, E. M. See Horovitz-Vlassova,

Rovesti, P., Italian essential oil of Helichrysum italicum, G. Don, B., 859.

Rovo Akt.-Ges. See Koch, Erich. Rowaan, P. A., determination of rotenone

in derris root, B., 429. Curação aloes, Rowden, E., and Green, A. T., effect of

hydrocarbon gases on refractory materials. I. Preliminary study of effect of methane on refractory materials, B., 60. Rowe, A. W., McManus, M. A., and Plum-

mer, A. J., metabolism of fructose. VI. Influence of level of ovarian function, A., 755.

McManus, M. A., Plummer, A. J., and Riley, G. A., metabolism of fructose. IX. Effect of endocrine dysfunction on tolerance, A., 1546.

Rowe, F. M., and Dangerfield, W. G., decomposition of azo-compounds by mineral acids, B., 311.

Dovey, W. C., Garforth, B., Levin, E., Pask, J. D., and Peters, A. T., a reaction of diazosulphonates derived from β -naphthol-1-sulphonic acid. XIII. Fission of the naphthalene nucleus and subsequent closure in two directions, A., 737.

Gillan, J. G., and Peters, A. T., a reaction of diazosulphonates derived from β-naphthol-1-sulphonic acid. XIV. Preparation of 1:4-diketo-3-(nitroaryltetrahydrophthalazines or 4-keto-1hydroxy - 3 - (nitroaryl - 3 : 4 - dihydroplithalazines and related compounds, A., 737.

Haigh, A. S., and Peters, A. T., reaction of diazosulphonates derived from β -naphthol-1-sulphonic acid. XV. Derivatives of 2'-nitro-4'-methylbenzene-2-naphthol-1-diazosulphonato and synthesis of 2-(2'-nitro-4'-methylphenylamino) iso indolinone - 3 - acetic

acid, A., 1269. Heath, G. M., and Patel, C. V., nitroand amino-3-arylphthalaz-4-ones, and corresponding 1-methyl compounds, A., 615.

and Owen, G., reduction and dispersion of azoic dyes, etc., in presence of Lissolamine-A (I.C.I.), B., 787.

Rowe, L. F. See Skau, E. L. Rowe, L. W., and Simond, A. E., effectiveness of theelol by oral administration, A., 644.

Rowe, W. See Scheele, W. Rowell, G. S., and Multigraph Co., preservation of colloid films, (P.), B., 253. Etching of planographic [metal printing]

plates, (P.), B., 281.

Rowell, H. W., plastics in instrument design, A., 1225.

Rowen, R. W. See Baird, D.

Rowlands, A. See Blood, J. M.

Rowlands, I. W., stability of anterior pituitary extract in ageuous solution, A., 387. Relative activity of different gonadotropic preparations on œstrous rabbits, pregnant rabbits, and im-

mature rats, A., 388. and Parkes, A. S., anti-thyrotropic

activity, A., 903.
Rowlands, W. T. See Montgomerie, R. F.
Rowlette, A. P. See Weiuer, D. O.

Rowley, H. H., physical studies of nonaqueous solvates. I. Solubility magnesium bromide in ethyl ether, A., 1194.

and Evans, W. V., accommodation coefficient of hydrogen on iron, A.,

Rowntree, L. G., Clark, J. H., Steinberg, A., and Hanson, A. M., biological effects of pineal extract (Hanson), A., 525. See also Einhorn, N. H.

Rowson, J. M. See Brindle, H.Roy, A. C. See Chopra, R. N.
Roy, B. B. See under Ray, B. B.
Roy, K. See Sen, H. K.

Roy, M. See Boutaric, A.

Roy, P. See Sen, H. K.
Roy, S. N., volumetric determination of lead by Fajans' method, A., 579. Use of adsorption indicators in acidimetry and alkalimetry, A., 1351.

Royal Baking Powder Co., acid calcium lactates, (P.), B., 824.

Royall, W., [sloping firebars for] potters' ovens, etc., (P.), B., 61.

Royce, H. D., and Southern Cotton Oil Co., fatty esters [glycerides], (P.), B., 1107.

Roychoudhury, S. See under Raychoudhury, S.

Royds, T. See Narayan, A. L. Royen, P., and Hill, K., constitution and mechanism of formation of solid, yellow hydride of phosphorus, A., 440. Partly hydride of phosphorus, A., 440. Partly halogenated phosphines; formation of so-called solid hydrogen phosphide, particularly of its phenyl derivatives, A., 1475. Physical and chemical properties of liquid hydrogen phosphide (diphosphine, P₂H₄), A., 1475.

Royer, G. G., thermostats, (P.), B., 3. Royer, L., decrease of a calcite crystal in an active isotropic medium; corrosion figures in dolomite, A., 689. Influence of symmetry of medium on symmetry of corrosion figures in crystals, A., 782. Orientation of crystals of potassium borofluoride by mica and barytes, and of sodium sulphite crystals by mica, A.,

Royer, $M_{\cdot,i}$ absorption of bilirubin, rose Bengal, and tetrabromophenolsulphonephthalein by the liver, A., 240.

Royster, P. H. See Southard, J. C. Rozanov. See under Rosanov.

Rozenbroek, M. D., swelling phenomena in capillaries with swellable walls, B., 83Î.

See also N. V. Chem. Fabr. Servo. Rozenfeld, L. E., and Bagdasarjantz, G. J., comparative biochemistry of muscle. I. Phosphagen in sea- and fresh-water Teleostei and Ganoidei, A., 1533.

Rozenhardt, V. O., effect of training on muscle-glycogen of pigeons, rabbits, and hens, A., 1019.

Rozental, D. See Timmermans, J. Rozental, S., analytical form of eigenfunctions of electrons in light atoms, A., Rozental, S. I., and Golitzin, I. V., protars, a dry arsenical fungicide, B., 661.

Rozum, J. S. See Urazovski, S. S.

Ruark, A. E., X-ray wave-length scales, A., 1040.

and Devol, L., radioactive fluctuations, A., 5, 541.

See also Maxfield, F. A., and Warfield, C. N.

Rubanik, M. See Finkelstein, V. S.

Rubber Growers' Association, rubber latex for road surfacing, B., 1008.

Rubber-Latex-Poeder-Co. N.V., and Stam, M. J., apparatus for converting milky liquid, latices, solutions, dispersions, and emulsions into a finely-divided solid condition by centrifugal spraying and drying, (P.), B., 81. Preparation of dry rubber in finely-divided solid condition by spraying latex in a drying atmosphere, (P.), B., 208. [dust] product, (P.), B., 656. See also Stam, M. J. Rubber

Rubber Producers Research Association, Martin, George, Davey, W. S., and Baker, H. C., concentration of [rubber]

latex, (P.), B., 112, 945.
Martin, George, Davey, W. S., and Lindsell-Stewart, L., concentration of [rubber] latex, (P.), B., 656.

and Stevens, H. P., concentration of [rubber] latex, (P.), B., 161. Conversion products of rubber, (P.), B., 382.

Rubber Service Laboratories Co., preserv-

ation of rubber, (P.), B., 946.
See also Bartram, T. W., Harman, M. W.,
North, C. O., Scott, W., and Sibley,

Rubel, V. M., relation of glycolysis to proteolysis in tissues, A., 378.

Ruben, S., voltaic couple, (P.), B., 283.

and Ruben Rectifier Corp., electriccurrent rectifiers, (P.), B., 508.

and Sirian Lamp Co., electrical-discharge devices: lamps, radiation devices, rectifiers, relays, etc., (P.), B., 748. Incandescence-lamp filament, (P.), B.,

and Vega Manufg. Corp., electrical resistance pyrometer, (P.), B., 817. Insulated [metal] wire, (P.), B., 1048.

Ruben Rectifier Corporation. See Ruben,

Rubenkoenig, H. L. See Mantell, C. L. Rubenz, S. D., relation of power to antiknock fuel requirements for multieylinder engines, B., 133.

Ruberoid Co., Ltd. See Irwin, D. L., and James, E. R.

Rubin, B. A., biose/monose ratio as a biochemical varietal character in the onion, A., 1571.

and Naumova, L. I., biochemical characteristics of variety in vegetables, A.,

and Trupp, V. E., cabbage-amylase, A., 109. Keeping qualities of different varieties of vegetables, B., 42.

Rubin, M. A., adaptation of cutaneous tactile receptors. IV. Electrolyte content of frog skin, A., 1291.

See also Hoagland, H. Rubin, N., and Bloom, A., determination of vanillin with 2:4-dinitrophenylhydrazine, A., 1529.

Rubinstein, A. L. See Mangubi, B. V. Rubinstein, A. M. See Balandin, A. A., and Tscherniaev, I. I.

Rubinstein, D. L., Burlakova, H., and Lvova, W., general application of Locb's

ionic quotient, A., 755.

Rubinstein, H. S., difference of response of pituitary glands of male and female albino rats treated with the growth hormone, A., 387.

Rubinstein, R. N. See Mikulinski, A. S. Rubinstein, V. See Menschikov, G. Rubintschick, J. See Geltzer, F.

Rubio, A., and Garcia de la Cueva, J. X-ray study of electrolytic deposition of cadmium, A., 783.

Ruch, E. H. See Young, J. Ruchhoft, C. C., comparative studies of media for determination of the coliaërogenes group in water analysis, B., 254.

Rudakova, N. V., purifying technical iso-propyl alcohol obtained from cracked

gases, B., 631.

Rudberg, E., energy distribution of electrons in photo-electric effect, A., 129. Inelastic scattering of electrons from metals, A., 130. Inelastic scattering of electrons from solids, A., $10\overline{4}2.$

and Slater, J. C., theory of inelastic scattering of electrons from solids, A.,

Rudd, G. V., and Kinross, F. M., chemical mediation of impulses in fibres of the splanchnic nerves, A., 1549.

Ruddy, R. H. See Buckley, W. E. Ruddy, W. See Press, E. W. S.

Rudeanu, A. See Parhon, C. C. Rudenko, N. S., and Schubnikov, L. V., viscosity of liquid methane and ethylene in relation to temperature, A., 21.

Ruder, W. E. See Gen. Electric Co. Rudge, E. A., "inorganic infiltration" theory of wood decay, B., 62, 276. Old timbers. IV. Waterloo Bridge piles, B., 837. Decomposition of timber under industrial conditions. VIII. Effect of calcium and iron, B., 837.

and Lewis, H., decay in structural timbers, B., 62. Old timbers. III. Postneolithic, B., 149.

Rudinger, G. See Picker, E.

Rudkovski, D. M., Trifel, A. G., and Frost, A. V., equilibrium constants of reaction of formation of ethyl chloride from ethylene and hydrogen chloride, A., 159.

Rudnev, N. A., volumetric determination of tin with ceric sulphate, A., 44. Precipitation of barium sulphate, A., 579.

Rudneva, T. I. See Nikitin, N. I. Rudnick, P., spectral intensities for hydro-

gen, A., 127.

Rudnicki, A. A. See Nemilov, V. A.

Rudnikov, P. P., metallurgical extraction of vanadium from the Pudoshgor titanium magnetites of the Karelian Autonomous Republic, B., 995.

Rudnitski, A. A., and Tverdovski, I. P., influence of composition of the electrolyte on electrolysis of carnallite, B., 458.

Rudolfs, W., and Chamberlin, N. S., effect of chlorination on activated sludge. I. Complete chlorination, B., 222.

and Gehm, H. W., multiplication of total bacteria and B. coli after sewage chlorination, B., 222. Chemical sewage coagulation, B., 699. Chemical coagulation of sewage. III. Effect of presettling. IV. Biochemical oxygen demand of soluble and dispersed materials. V. Mixing of chemicals and flocculation, B., 956.

Rudolfs, W., and Lacy, I. O., effect of chlorination on activated sludge. II. Partial chlorination. III. Split chlorination: effect on settling, B., 397,

and Setter, L. R., use of "chloroben" [o-dichlorobenzene] in sewage treatment, B., 573.

Rudolph, G., dyeing methods for viscose staple fibre and its mixtures with other fibres, B., 16. New acetate-rayon dyes, B., 231.

Rudolph, H., ceramio filters and diaphragms, B., 431. [Distribution of] phosphorus in chilled cast-iron rolls, B.,

Rudow, H. See Weyl, W. Rudra, M. N., distribution of vitamin-Cin different parts of common Indian food-stuffs, A., 766.

Rudy, H., absorption spectra as an aid to vitamin research, A., 1159. Enzymic hydrolysis of lactoflavinphosphoric acids, A., 1299.

See also Kuhn, R.

Rudy, R. B., determination of sulphuric anhydride in Portland cement by means of the Wagner turbidimeter, B., 991.

Rue, J. D., bleaching [of pulp], B., 735. and Hooker Electrochem. Co., pulp-treating [bleaching] process, (P.), B., 270.

See also Hooker, P. Rübel, F. See Karrer, P.

Rücker, J., paint-mixing and -grinding machines, (P.), B., 1056.

Rügner, O. See Engels, H.

Ruehe, H. A., and Ramsey, R. J., intensify-

ing flavour and aroma in butter, B., 250.

Ruehle, G. D., spraying for control of citrus scab, B., 387.

Rülke, O. See Pighini, G. Ruemele, T., quality of polishes, B., 557. Rüsberg, F., and Kali-Chemie Akt.-Ges. manufacture of potassium carbonate and sodium sulphate, (P.), B., 453.

Rütgerswerke Akt.-Ges., rinsing and cleaning liquids, (P.), B., 831.

Rüth, W., tests on elasticity, adhesion, and bond-resistance of concrete prepared with Portland cement and trass cement, B., 194.

Ruetz, O. See Schenck, R.

Rufener, H., Eichmann, T., Scarlett, G. B., and Brock, J. W., obtaining dense carbon dioxide snow directly from liquid carbon dioxide, (P.), B., 146. Ruff, A., and Krynicki, A., analysis of

phthalic acid and phthalates, B., 229.

Ruff, O., preparation of aluminium carbide, Al₄C₃, A., 173. Fluorine and its compounds, A., 1477. Chemistry of high temperatures, B., 303.

[with Bretschneider, Q., Luchsinger, W., and Miltschitzky, G.], from iodoform

to fluoroform, A., 452.

and Giese, M., fluorination of silver cyanide. I., A., 597. Isomerism of dicyanohexafluoride, C₂N₂F₆. II.,

A. 597. Trifluorit. A., 597. CF₃ NO. III., A., 702. Trifluoronitrosomethane,

Ruff, V. T., preparation of chemically pure hydrochloric acid, B., 638.

Ruffell, J. F. E., history of factice manufacture, B., 32.

Ruff, Wilhelm, determination of small amounts of iodine in organs, particularly in ox thyroid, A., 1532. Ruff, Wolfram, [grey] cast iron, (P.), B., 375.

Rufimski, P., ozonisation of fatty acids of cottonseed oil, B., 28. F.p. of binary and ternary mixtures of fats, B., 649.

Ruggli, P., relations between constitution and substantivity of dyes, B., 140.

Bussemaker, B. B., Müller, Wilhelm, and Staub, A., preparation of m and p-phenylenediethylamine and benzohexamethyleneimine from the three phenylenediacetonitriles, A., 64.

and Caspar, E., azo-dyes and their intermediates. XVI. Reactions of tetrazo-compounds of the benzene and naphthalene series; peri-disazo-dyes.

IIÎ., A., 65.

and Jensen, P., chromatographic adsorption of coal-tar dyes and intermediate products. II. Derivatives of a- and

β-naphthol, B., 266. and Lang, Friedrich, azo-dyes and their intermediate products. XVIII. cisand trans-forms of stilbene dyes, A.,

1373.

and Petitjean, C., nitrogenous heterocyclic rings. XXIV. Benzodipyrroles. IV. Ring-closure with a m-phenylenedihydrazone, A., 1525.

and Staub, A., nitrogenous heterocyclic rings. XXIII. Reduced lin.-m-benzodipyridine. XXV. m - Phenylenedipropiolic acid and m-diacetylbenzene, A., 866, 1379.

and Straub, O. [with Schmid, O.], indoles and isatogens. XXII. Benzodipyrroles. III. 2:6-Dimethyl-lin.-m-benzo-

dipyrrole, A., 614.

nd Wolff, Eberhard, indoles and isatogens. XXI. Condensation of the and three phthalaldehydes with nitrated toluenes and preparation of diisatogens, A., 345.

and Zaeslin, H., two new dichloro-onitrobenzoic acids, A., 843.

Ruhemann, M., Lichter, A., and Komarov, P., phase diagrams of low-melting mixtures. II. M.p. diagram of oxygen-nitrogen and the phase diagram of nitrogen-carbon monoxide, A., 564. See also Prichotko, A.

Ruhkopf, H., and Mohs, P., saponin from Primula elatior, A., 994.

Ruhoff, J. R., Burnett, R. E., and Reid, E. E., hydrogen bromide (anhydrous), A., 576.

See also Kistiakowski, G. B., and Reid,

Ruhrchemie Akt.-Ges., gaseous fuel mixtures, (P.), B., 583, 869, 1189. Fuel, (P.), B., 869. Purification of cokeoven and similar gases, (P.), B., 1189. See also Tramm, H.

Ruibak, B., determining inorganic acidity of petroleum products, B., 818. Rapid analysis of alkali sludge from "petroleum soap" and "acid oil," B., 819.

and Kjurktschan, A., contact filtration [of petroleum distillates], B., 915.

Makushinskaja, N., and Ter-Akopova, M., regenerating spent clay from the contact treating plants, B., 627. Ruibnikov, G., effect of steam on degree

of precipitation of sulphuric acid mist, B., 18.

Ruiz, A. S. See Giroud, A.

Ruiz, (Mme.) I. See Florentin, D. Rumbaugh, L. H., and Locher, G. L., neutrons and other heavy particles in cosmic radiation of the stratosphere, Rumbold, IV. G., coal preparation on the Continent, B., 481.

Rumer, G., wave theory of the neutrino, A., 774.

Rumford Chemical Works. See Bryan, Charles S., and Fiske, A. H.

Rummel, K., combustion in technical gas furnaces as a problem of the gas-air mixture, B., 967.

Rummel, T., stabilisation of a glow discharge in a homogeneous field in air at atmospheric pressure by means of electrolytically produced films of aluminium oxide, A., 538. Growth and structure of electrolytically prepared aluminium oxide layers, A., 668. Structure of electrolytic oxide layers, A., 923, 1321.

Rummelsburg, A. L. See Hercules Powder Co.

Rumpel, H. H., and Smith Engineering Works, crushing machine, (P.), B., 48. Crushing structure, (P.), B., 623.

Rumpelt, H., difficulties in filtering off dyes

and pigments, B., 303.
[with Zöllner, E.], influence of raised temperatures on filter efficiency, B., 720.

Rumpf, (Mme.) M. E. P., chlorotitanic acid; Raman spectrum, A., 663.

and Rumpi, P., ultra-violet spectra of bromine derivatives of aniline, A., 661.

Rumpf, P. See Freymann, (Mme.) M., and Rumpf, (Mme.) M. E. P.

Rumple, J. M. See Chem. Construction Corp.

Rundle, D. H. See Chace, E. M.

Runge, I., pre-discharge currents and striking conditions in gas-filled hot-

cathode tubes, A., 3.
Runnström, J., influence of pyocyanine on respiration of sea-urchin's eggs, A., 374. Action of lithium on seaurchin development, A., 889.

and Thörnblom, D., effect of pyocyanine on animalisation of the sea-urchin caused by calcium-free sea-water and sodium thiocyanate, A., 1146.

See also Lennerstrand, A. Runquist, L. See Hägglund, E. Runtzo, P. M. See Nikiforov, V. K.

Runyan, A. L., and Harding, E., crusher and pulveriser, (P.), B., 577.

Ruosch, S. See Lüscher, E.

Ruoss, H., determination of pore diameter, pore number, and permeability earthenware filters, B., 351.

Rupe, H., and Brentano, IV., preparation of di-a-naphthylmcthylamine, A., 837. Catalytic hydrogenation of nitriles with nickel; hydrogenation of hydroxybenzonitriles and their methyl ethers, A., 850.

and Gassmann, A. [with Haecker, R.], ar-turmerono from curouma oil, A., 852.

Hagenbach, H_{\cdot} , and Collin, A_{\cdot} , p_{\cdot} dimethylaminobenzylidenequinaldine; action of chromophoric and auxochrome groups, A., 83.

Henke, F., and Bürki, F. [with Hirschmann, H.], optical superposition, A., 1114.

Rupp, E. See General Electric Co. Rupp, R. E., bleaching of cotton-piece goods with hydrogen peroxide, B., 97.

Ruppert, G., heat balance of concentrators in conjunction with wet-process rotary [cement] kilns, B., 1095.

Ruppik, H. See Greis, F., and Pomp, A.

Rusakov, M. G., and Shemotschkin, A. I., treating sole leather with "ampech" and "amsok" sulphite-cellulose extracts, B., 382.

Rusanevitsch, N. F., elementary analysis of mineral fuels and organic substances,

Rusanov, A. K., and Bodunkov, B. I., spectral-analytical determination of alkali and alkaline-earth metals in aluminium and lead, B., 1211. See also Silberminz, V. A.

Rusby, G. L. See Hilton, W., and

Robertson, A. Rusch, W. Sco Volkov, E. Rusher, M. A., enamel-thickness gauge, B., 102.

Rusinov, L. B. See Fomin, V.
Rusk, R. D., and Peckham, A. L.,
luminosity in the mercury discharge, A., 2.

Ruska, H. Seo Wetzel, R. Ruskin, F. R. See Ruskin, S. L.

Ruskin, S. L., and Ruskin, F. R., barbituric acid-hydantoin compounds, (P.), B., 1130.

Rusoff, L. L. Sec Neal, W. M.

Russ, E. F., electrical heat treatment of light metals, B., 199. Electric melting furnace [for metals], B., 202.

Russell, A., wulfenite from Cumberland and leadhillite from Kirkcudbrightshire, A., 818. Baryte from Manvers Main colliery, Yorkshire, A., 818. Fluorite in Aberdeenshire and Banffshire, A., 818.

Russell, A. G. See Bell Telephone Labs., Inc., and Electrical Res. Products, Inc. Russell, A. S., order of affinity of metals for copper, iron, cobalt, and nickel,

A., 1078. Russell, B., Russell, C. B., and Attapulgus Clay Co., water purification, (P.), B.,

Russell, C. B. See Russell, B.

Russell, D., security paper, (P.), B., 96. Russell, E. W., binding forces between clay particles in a soil crumb, B., 245. Physical description of soil tilth, B., 562.

Russell, F. C., and Bradbury, J. H., [cleaning device for] oil filters, (P.), B.,

Russell, F. H. See Anderson, Ernest. Russell, G. A., crystal growth and solution under local stress, A., 142.

Russell, H. See Simmons, J. P.

Russell, H. D. Seo Eastman Kodak Co. Russell, H. N., Babcock, H. D., and Moore, C. E., series lines of magnesium in the solar spectrum, A., 397. See also Meggers, W. F.

Russell, J., and Cameron, A. E., determination of total basic amino-acids in gelatin by titration in glacial acetic acid, A., 874.

Russell, J. A., carbohydrate levels in fasted and fed hypophysectomised rats, A.,

and Bennett, L. L., maintenance of carbohydrate levels in fasted hypophysectomised rats treated with anterior pituitary extracts, A., 1426.

Russell, J. F., sterilisation of milk and

other liquids, (P.), B., 1016.
Russell, J. K. See Campbell, W. B.
Russell, J. L., thixotropic gelation. II. Coagulation of clay suspensions, A.,

and Rideal, E. K., thixotropic gelation. I. Mechanism, A., 1068.

Russell, K. L. Seo Ritter, J. J. See Blatt, A. H. Russell, L. A.

Russell, M. E. See Jones, L. A. Russell, N. F. S., Langenberg, F. C., and U.S. Pipe & Foundry Co., cast-iron pipe, (P.), B., 106.

Russell, P. See Le Fèvre, R. J. W.

Russell, P. A., austenitic cast irons, B., 321. Russell, R., and Manns, T. F., copper sulphato as a crop nutrient: tobacco, cotton, and corn (1934), B., 385.
Russell, R. D., mineral composition of

atmospheric dust collected at Baton

Rouge, Louisiana, A., 183.

Russell, W. C., and Taylor, M. W., relation between vitamin-A and -D intake by the hen and the output in eggs, A., 528.

Taylor, M. W., Chichester, D. F., and Wilson, L. T., relation between vitamin-A content of the dairy ration and of milk, B., 296.

See also Taylor, M. W.

Russell, W. R., and Stedman, E., myotonia, A., 1541.

Russell, W. W., and Ghering, L. G., nature of surface of copper catalysts, A., 168.

See also Huey, H. I. Russell-Wells, B. See Haas, P. Russinov, L. I. See Deisenroth-Missovski,

Russo, F. See Giacalone, A. Russo, G., limits of action of p_H on vasal

tonus: lung preparation of the dog, A., 756. Mechanism of action of citrate ion on the heart and smooth muscle of amphibia, A., 757. Amphotropic action of ergotamine (ginergen) on the isolated toad's heart, A., 758. Effect of cations on velocity of the extinguishing action of animal and vegetable organs, A., 889. Site of action of barium, strychnine, and veratrine in the striated muscle of the toad, A., 1147.

Russo, M. See Oddo, G. Russo, M. J. See Dowzard, E. Rust, S. F., wood preservation in Australia and the United States, B., 934.

Rustad, S. Seo Frivold, O. E.

Rusterholz, A. A., specific heat of Seignette salt. I. Anomaly at upper Curie point, A., 417.

Rustless Iron Corporation of America, steel and iron alloys, (P.), B., 416. Low-carbon alloy steels and irons, (P.), B., 459.

See also Arness, W. B., and Feild, A. L.

Rustung, E. See Hansen, Klaus. Ruszynák, S., and Szent-Györgyi, A., vitamin-P; flavanols as vitamins, A., 1162. Rutes, M. See Gubarev, E.

Rutgers, A. J., and Overbeek, J. T. G., velocity of cataphoresis and electrical

conductivity of colloids, A., 1067. Rato of electrophoresis and electrical conductivity of hydrophobic colloids, A., Ruth, J. P., jun., lithopone, B., 510.

Cyanide treatment of [gold] ores, (P.), B., 796.

and Brinker, F. A., flotation oro separation, (P.), B., 153.

Brinker, F. A., and Ruth Co., [sulphide] ore separation by flotation, (P.), B., 938.

and Ruth Co., ore separation [by differential flotation], (P.), B., 154. See also Burruss, D. N., jun.

Ruth, M. See Reichstein, T. Ruth, IV. A., and Kadow, K. J., sprayresidue removal, B., 392.

Ruth Co. See Ruth, J. P., jun.

Ruth-Aldo Co., Inc. See Viviani, E. Ruthardt, K. Sec Rollwagen, W.

Rutherford, (Lord), transformation of energy, A., 403. Radioactivity and atomic theory, A., 658. The electric are and its applications, B., 1103. Rutherford, J. T. See Standard Oil Co.

of California.

Rutherford, M. B. See Daniel, E. P.

Ruthruff, R. F. See Standard Oil Co. Rutland-Barsby, C., smokeless operation of hand-fired boilers, B., 959.

Rutovski, B. N., and Antropova, N. I., adsorption of phenol by active char-

coals, B., 181.

Karitscheva, V. N., Andreeva, T. P.,

Klepitkova, O. M., and Mogilevkina, L. N., preparation of camphor from turpentine, B., 310.

Kolobelotzkaja, T. A., and Jaroslavtzeva, Z. A., catalytic reduction of pulcgone,

A., 855.

Ruttmanu, W., and Mailander, R., determination of fatigue strength [of alloy steels], B., 374.

See also Mailander, R.

Rutzler, $J. \cdot E.$, jun.See Hoagland,

Ruwe, H. H. See Ernst, R. C.

Ruyer, A. See Bedos, P.

Ruyle, E. H., and Tanner, F. W., microbiology of canned meat products, B.,

Ruys, J. D. See Shell Development

Ruyven, B. H. van, nature of some dilute and concentrated non-electrolytes, A., 1065.

Ruzanov, P. A. See Baranov, P. A.

Růžička, A. Sec Pázler, J. Ruzicka, F. C. J. Sec Kon, G. A. R.

Ruzicka, L., relationships in sex hormone groups, A., 527. Dehydrogenation. III. Dehydrogenation of hydroaromatic carboxylic acid derivatives and ketones by selenium, A., 848. Bosshard, W., Fischer, W. H., and Wirz,

H., sexual hormones. XVII. Bromination of sterol and androstene deriv-

atives, A., 1382.

and Fischer, W. H., sexual hormones. XIV. Preparation of enolic derivatives of ketones of the cholesterol and

androsterol series, A., 991.

Fischer, W. H., and Meyer, Jules, sexual IX. trans-△4-Dehydrohormones. androsterone and the preparation of trans-∆5-dehydroandrosterone from stigmasterol, A., 76.

and Giacomello, G., polyterpenes and polyterpenoids. CVII. Transformation of gypsogenin (albsapogenin) into olcanolic acid, A., 1514.

and Goldberg, M. W., sexual hormones. XI. Partial hydrolysis of cis-transandrostane-3:17-diol and its partial esterification; specificity of sexual hormono action. XII. Amines of the

androsterone series, A., 467, 473. Goldberg, M. W., and Rosenberg, H. R., sexual hormones. X. Preparation of 17-methyltestosterone and other androstene and androstane derivatives; relationship between chemical constitution and male hormone activity, A., 76.

Ruzicka, L., Hösli, H., and Hofmann, K., polyterpenes and polyterpenoids. XCIX. Primary products of oxidation at the double linking of sumaresinolic acid and oleanolic acid. CIII. Synthesis of the five isomeric methoxy-1:2:7-trimethylnaphthalenes(methoxysapotalins), A., 339, 607. and Hofmann, K., polyterpenes and

polyterpenoids; transformations in rings A and E of olcanolic acid; carbon skeleton of pentacyclic tri-

terpenes, A., 477.

Hofmann, K., and Frei, J., polyterpenes and polyterpenoids. CV. Constitution of the trimethylnaphthols formed during dehydrogenation of triterpenes; carbon skeleton of pentacyclic terp-

enes, A., 607.
and Isler, O., polyterpenes and polyterpenoids. CVI. Oxidation of dihydrobetulin and dihydrobetulonic acid by nitric acid, A., 842.

and Jutassy, E., polyterpenes and polyterpenoids. CI. Constitution of cedrene and cedrol, A., 607.

and Kägi, H., sexual hormones. XV. cis-Testosterone and other 17-cis-derivatives of androstane and androstene, A., 991.

and Mörgeli, E., polyterpenes and polyterpenoids. CIV. Synthesis of 3:9:10trimethyl- and 3:8-dimethyl-picene, A., 607.

Reichstein, T., and Pulver, R., synthesis of tetrahydroartemisia ketone, A., 968. and Rosenberg, H. R., sexual hormones. XIII. Preparation of 17-ethyltestosterone and the 3-trans-17-cis-diols of androstane and androsteno; specificity of the sex hormones, A., 606.

and Seidel, C. F., dehydrogenation. IV. Dehydrogenation of cycloheptane, cyclooctane, and methylated cycloheptanes to aromatic hydrocarbons,

A., 713. and Wettstein, A. [with Klarer, IV., and Meyer, J.], sexual hormones. XVI. Esters of the testosterone and androsterone series, A., 1382.

Wettstein, A., and Kägi, H., sexual hormones. VIII. Preparation of testosterone by use of mixed esters, A., 76.

Zimmermann, W., and Huber, H., polyterpenes and polyterpenoids. Constitution of components of the caryophyllene mixture, A., 607.

See also Bacon, R. G. R.

Ruziczka, W., addition of iodine to coumarin derivatives, A., 1262. Analysis of vinegar, B., 214.

and Kürschner, K., acidity of pine

nitrolignin, A., 610.

Ryall, A. L., fluorine spray-residue removal, B., 392. Physiological effects of carbon dioxide treatment of plums, B., 1123.

See also Haller, M. H.

Ryan, J. D., Arner, W. J., Watkins, G. B., and Libby-Owens-Ford Glass Co., safety glass, (P.), B., 234.

and Libbey-Owens-Ford Glass Co., laminated safety glass, (P.), B., 933.

Watkins, G. B., and Libby-Owens-Ford Glass Co., laminated safety glass, (P.), B., 234.

Ryan, J.J. See Boyle, C.

Ryberg, B. A., determination of wool in wool-cotton textile materials, B., 634.

Rybinsky, S. B., and Zrykina, L. M., changes in the nucleus of Euglena gracilis, Ehrbg., in chronic arsenical poisoning, A., 382.

Rydberg, E. See Reichert, Bruno. Ryde, J. W. See Gen. Electric Co.

Ryde, N., Stark effect in neon, A., 1039. Ryden, L. L., and Marvel, C. S., reaction between sulphur dioxide and olefines. III. Higher olefines; limitations of the reaction, A., 186. Polysulphones from acetylenes and sulphur dioxide, A., 1486.

Ryder, C. D., metal-base liquid compositions such as paints, enamels, lacquers, and oil primers, (P.), B., 206.

Rydin, H. See Blix, G.

Rydon, H. N., synthesis of cis- and transdl-norearyophyllenic acids and of dehydronorearyophyllenic acid, A., 846. Synthesis of umbellularic acid; a synthetic proof of presence of the cyclopropane bridge in the terpenes of the thujane series, A., 993. Condensation of ethyl a-bromoisobutyrate with n-alkylmalonic esters; structure of the lupin alkaloids, A., 1488.

See also Ives, D. J. G., Linstead, R. P.,

and Newman, L. W. J.

Rygg, G. L. Sec Harvey, E. M.

Rygh, O., factors producing rickets present in cereals, A., 1430. Vitamin content of Norwegian food-stuffs, B., 249. Ryland, L. B. See Tamele, M. W.

Rymer, M. R., and Lewis, R. C., growth effect of the residue remaining after alcoholic extraction of yeast, A., 1032.

Rymer, T. B., emission of positive ions by platinum when heated in oxygen, A.,

Rymill, F. E. See Corran, R. F.

Ryner, A., [concrete-bitumen] road sur-

faces, (P.), B., 741.
Ryô, T., water content of blood of the normal human adult; correlation between water content of blood from the ear lobe and that from the median vein, A., 876. Somatic phenomenon of weaning of children with respect to the water content of the blood, A., 1135. Ryrie, G. A. See Georgi, C. D. V.

Ryšánek, A. See Jilek, A.

Ryschkevitsch, E., new German ceramic raw materials from pure oxides for construction of chemical apparatus, B., 320. Physical chemistry of modern preparation and uso of graphite, B., 1137.

Ryss, J. G., and Bakina, N. P., complex fluorides. I. Hydrolysis of the silicofluoride ion. II. Hydrolysis of boro-

fluoride ions, A., 935.

Rysselberghe, P. van, new periodic table, A., 5. Thermodynamic potentials and affinity, A., 159. Significance of the thermodynamic quantities ΔF and ΔF° , A., 290. Fundamentals of chemical thermodynamics, A., 290.

Ryszkowska, M., action of nymphalin on the heart and blood-vessels, A., 1145.

Rytz, F., rapid flocculation method for diagnosis of syphilis, A., 506.

Ryu, K. See Shibuya, K. Ryu, S., influence of lungs on salt metabolism, A., 371.

Ryzhova, A. P. See Giršavičius, J. Rzeppa, H. W. See Wagner-Jauregg, T. Rzezacz, P., sampling fine coal from jig washers, B., 913.

Rzymowska, C. J. Seo Cimerman, C., and

Wenger, P.

S.M.A. Corporation. See Barnett, H. M., and Germann, A. F. O.

S.O.S. Patents Co., Ltd., and Reddrop, H. C., grinding, blending, and emulsifying machines, (P.), B., 256.

Sá, A., colour reactions of the chlorate ion, A., 442. Qualitative micro-analysis, B., 571.

and Del Boca, A. D., microchemical distinction of cocaine, novocaine, stovaine, and alipine, B., 429.

See also Gietz, $C. \hat{E}$. Saaf, M. von. See Griffin, C. W.

Saal, R. N. J., laboratory investigations into slipperiness of roads, B., 194.

Saastamoinen, S. See Virtanen, A. I. Sabalitschka, T., and Dürrmann, bactericidal action of disinfectants in presence of oil, fat, paraffin, vaseline, etc., B., 525.

Sabetay, S., rapid identification of methyl anthranilate [in essential oils], B., 44. essential oils] by cold formylation, B., 715. Colour position 715. Colour reactions of essential oils, fatty oils, and synthetic perfumes, B., 1128. Wetting agents frothing in acid media, B., 1191.

See also Garnier, R., Palfray, L., and Sandulesco, G.

Sabetta, V.J., Himmelfarb, D., and Smith, G. B. L., reduction of nitroguanidine. II. Preparation and properties of nitrosoguanidine, A., 321.

Sabin, A. B., mechanism of immunity to filterable viruses. I. Docs tho virus combine with the protective substance in immune serum in absence of tissue? II. Fate of the virus in a system consisting of susceptible tissue, immune serum, and virus and rôle of tissue in mechanism of immunity, A., 877.

Sabin, F. R. See Smithburn, K. C.

Sabinina, L. E., and Terpugov, L. I., surface tension of the system sulphuric acid-water, A., 26.

Sabri, I. A., and Fikri, M. M., antirachitic factor in human milk, A., 766.

Sabron, L. G., and Renaudie, M., ageing of coal-tar road binders, B., 61.

Sacchi, U., different reactions of the bulbar centre to adrenaline and pituitrin, A., 762.

Sacchi, V. P., adhesion and reasons for non-adhesion of galvanic deposits, B., 152. Saeconi, S. See Bezzi, S.

Sacharuk, S. A., melting refined ferrochromium from a powdery charge, B.,

and Vainstein, G. M., fused magnesium oxide, B., 406. Electrolytic production of ferrovanadium, B., 996.

Saehdeva, T. D. See Narang, K. S.
Saeheim, I. G., ether and rectification plants, B., 732.
Sacher, J. F., electro-osmotic dehydration

of pigments and pigment[-oil] pastes, B., 29. White lead-zine oxide mixtures in oil paints, B., 1216.

Sachs, A., Levine, V. E., and Fabian, A. A., copper and iron in human blood. IV.

Normal children, A., 1530. Sachs, A. P., and Petroleum Conversion Corp., cracking of naphtha and heavier oils in the vapour phase, (P.), B., 534.

Sachs, E., protective coating of hard rubber on paper, pasteboard, etc., (P.), B., 270. Curing [vulcanisation] of rubber articles, (P.), B., 290.

Sachs, G., plastic working of metals, B., 237. See also Burkhardt, A., and Göler, F. K. von.

Sachs, J. H. See Du Pont de Nemours &

Co., E. I.
Sachs, P., chemical basis of Ehrlich diazoreaction with urine. I. and III., A., 502, 1288.

and Kloss, H., chemical basis of Ehrlich diazo-reaction with urine. II., A., 502. Sachs, S., testing slag attack [of refrac-

tories], B., 885.
Sachsse, H., thermal decomposition of ethane. I. Probability of decomposition into two methyl radicals and into ethylene and hydrogen. II. Collision efficiency in activation and mean life in activated state, A., 432. Induction time and ignition temperature of methane-oxygen mixtures, A., 1209.

See also Bartholomé, E., and Patat, F. "Sachtleben" Akt.-Ges. für Bergbau & Chemische Industrie. See Eulenstein, F., and Müller, Johannes.

Sack, A. M., and Brodski, A. E., Raman spectra of solutions. II. Solutions of arsenic trichloride in methyl and ethyl alcohols, A., 137.

Sack, G., determination of veronal [in urine], A., 1537.

Sack, H., ultrasonic experiments, A., 417. See also Claeys, J., and Errera, J.

Sack, J. See Lips, E. M. H. Sackers, E. See Frey, E. K.

Sackett, A. J., acrating apparatus for fertiliser, etc., (P.), B., 1224.
Sacks, J., and Sacks, W. C., resynthesis of

phosphocreatine after muscular contraction, A., 236. Carbohydrate changes following recovery from muscular contraction, A., 236.

Sacks, L. J. See Smith, Clayton S. Sacks, W. C. See Sacks, J.

Sacrez, R. See Bezssonoff, N.

Sadakata, K., platinum plating, B., 329. Sadakiyo, G., [continuous] electric purification of oil, B., 1029.

Sadgopal, M. See Godbole, N. N. Sadikov, V. S., bio-organic chemistry of proteins, A., 623.

and Lindquist-Risakova, E. V., acid autoclaving of blood-albumin at 220°, A., 222.

and Vadova, V. A., autoclave splitting of protein by means of absolute methyl alcohol, A., 90.

Sadler, H. W. See Bird, E. W.

Sadler, W., Eagles, B. A., Bowen, J. F., and Wood, A. J., cheese-ripening studies, B., 760. Influence of different extracts on acid production of lactic acid bacteria, B., 760.

Sadowski, T. See Moraczewski, W.

Sadron, C., birefringence by mechanical

deformation of pure liquids, A., 666.

Sadtler, S. S., smoking tobacco, (P.), B., 395. Prepared smoking tobacco, (P.), B., 571. and Field, W. H., bituminous paving material, (P.), B., 696.

and Hepburnite Corp., bituminous compositions, (P.), B., 63.

Sadusk, J. F., jun. See Ball, E. G. Saeger, C. M., jun., studies on cast red brass for establishment of a basic classification of non-ferrous ingot metals for specification purposes, B., 412.

Saegusa, H., and Matsumoto, T., anomalous variation with temperature of electrical conductivity of silicate minerals and specially of cut quartz, A., 185.

Saeki, H. See Shibuya, K. Saeki, Y. See Imai, H.

Sändig, R. See Scheiber, J.

Sáenz de Buruaga, J., and Verdú, F., synthesis of plumbagin, A., 1256.

Saethre, H., prolan excretion in senility, A., 252. Determination of excretion of prolan by mature and by aged men, A., 388.

Saew, J., effect of physiologically acid manuring on yield of winter rye and wheat on chernozem soils, B., 115.

Safety Fumigant Co. See Houghton, H. W. Safonova, M. K. See Fridschtein, I. L. Sagastume, C. A., and Crespi Gherzi, R. A.,

determination of urea in blood, A., 1283. Determination of albumin in urine, A., 1288.

Sage, B. H., Backhus, H. S., and Vermeulen, T., phase equilibria in hydrocarbon systems. XII. Specific heats of mixtures of propane, n-butane, and

n-pentane, A., 675.

Kennedy, E. R., and Lacey, W. N., phase equilibria in hydrocarbon systems. XIII. Joule-Thomson co-

efficients of propane, A., 788. and Lacey, W. N., phase equilibria in hydrocarbon systems. IX. Specific heats of n-butane and -propane. X. Thermodynamic behaviour of liquid mixtures of n-butane and crystal oil. XI. Thermodynamic properties of mixtures of a crude oil and a natural

gas, A., 149; B., 307.
Webster, D. C., and Lacey, W. N., phase equilibria in hydrocarbon systems. XV. Mixtures of methane and a crude oil. XVI. Solubility of methane in four light hydrocarbons,

A., 1333; B., 1076. See also Kennedy, E. R.

Sage, C. E., and Stevens, S. G. E., sulphuric acid test for liquid paraffin, B., 715.

Sager, F., refining of cracked distillates with high sulphur content, B., 1076. Sagi, A. See Bienenstock, M.

Sagortschev, B., investigation of [thermal] decomposition of [solid] barium oxalate by emanation method, A., 803. Graduated [thermal] decomposition of barium dihydrogen oxalate dihydrate measured by the emanation method, A., 1349.

Sagulin, A. V. See Lavrov, F. A.
Sah, P. P. T., synthesis of vitamin-C
from starch, A., 315. Starch as
starting material for synthesis of vitamin-C, A., 315. Amino-acids. I. Application of Curtius reaction to synthesis of glycine, A., 973. Possible methods of synthesis of the carbon skeleton present in sterols, bile acids, sexual hormones, and plant heart poisons, A., 1256.

and Tseu, C. Z., hydrazines. V. m-Tolylhydrazine as a reagent for identification of aldehydes and ketones. VI. Identification of sugars by means of the three isomeric tolylhydrazines,

A., 1281.

Wang, S. M., and Kao, Cheng-Heng, semicarbazides. IV. m-Tolylsemicarbazide as a reagent for identification of aldehydes and ketones, A., 1005. Azides. VI. p-Bromobenzazide as a reagent for identification of primary and secondary amines, A., 1006.

and Wu, C. S., m-chlorobenzhydrazide as a reagent for identification of aldehydes and ketones, A., 1281.

Sah, P. P. T. See also Chang, K., Chen, H., Kao, Chung-Hsi, Meng, K., Tschesche, R., Tung, W. L., and Wang, S. M.

Saha, M. N., origin of mass in neutrons and protons, A., 660. and Mathur, L. S., theories of the active

modification of nitrogen, A., 919.

Saha, N. K., reconstruction of the massdefect curve and stability of Be, A.,

Saha, S. K., micro-determination of nitrogen in soil, B., 513. Saharia, G. S. See Desai, R. D.

Sahashi, Y., Takeuchi, K., Shimamoto, T. and Iki, T., synthetic preparation of β-(or 10-)hydroxycamphor, (P.), B., 1234.

See also Zaidan Hojin Rikagaku Kenkyujo.

Sahasrabuddhe, D. L., fixation of nitrogen by rice soils and rice plants, B., 659. Sahr, E. von. See Foerster, F.

Sahut, Conreur, & Co., sifting or screening apparatus, (P.), B., 352.

Saifer, A., and Kornblum, M., determination of chlorides in biological fluids by use of adsorption indicators; use of dichlorofluorescein for volumetric micro-determination of chlorides in cerebrospinal fluids and blood-scrum; use of diphenylamine-blue for volumetric micro-determination of chlorides in urine and blood-filtrates, A., 260, 1038. Saijō, S., tests of alcohol fuels, B., 178.

Sailor, E. See Schätzlein, C.

Saini, H., thermal expansion of rocksalt and of pure sodium chloride, A., 150. Sainio, E. See Toivonen, N. J.

Saint, S. J., cane molasses, its sulphate, copper, and iron contents, B., 424. St. Helens, H. See Wilkins, T. R.

St. Helens Cable & Rubber Co., Ltd., Harrison, H. C., and Ensor, A. J., machines for extruding rubber and similar

materials, (P.), B., 34. Saint-Jacques, C., and Poupet, L., roasting and sintering powders and pulverised minerals in the Saint-Jacques turbulent

furnace, B., 303.

St.-Jacques, E. C., [cyclone] separator, (P.), B., 673.

St. John, (Miss) E. L., and St. John, (Miss) N. B., relative reactivities of organo-metallic compounds. Competitive reactions of some compounds, RHal, with magnesium, A., **1279.**

See also Gilman, H.

St. John, J. H., effect of emetine on Entamæba histolytica in culture, A.,

St. John, J. L., Carver, J. S., Johnson, O., and Brazie, D., optimum [dietary] protein levels for chickens, B., 394. See also Carver, J. S., Frost, C., Gerritz,

H. W., and Overley, F. L.
St. John, (Miss) N. B. See Gilman, H.,
and St. John, (Miss) E. L.

St. Joseph Lead Co., condensation of metallic [zinc] vapours, (P.), B., 1212. See also Weaton, G. F.

Saint-Maxen, A. Sec Dubrisay, R.

Saito, G., ageing of alkali-cellulose, B., 586. Viscosity of cellulose solutions. I. and II., B., 635.

See also Kratky, O., and Mark, H.

Saito, J. See Goto, K.

Saito, Kisuke, effect of annealing on the length of cold-drawn [metallic] rods, B., 1044.

Saito, Kojiro, and Suginome, H., alkaloids of white hellebore. II. Isolation of alkaloids from so-called resinous matters, A., 870.

and Takaoka, M., alkaloids of white hellebore. III. Constitution of jer-

vine, A., 870. Saito, M. See Shikata, M.

Saito, Shohei, water absorption of rubber and allied substances, B., 419.
Saito, Shōichiro, differential electrometric

titration apparatus, A., 582.

Saito, T., effect of mixing fertiliser elements on sugar-cane [cultivation], B., 660.

Sakaguchi, K., and Wang, Y., assimilation of nitrites by fungi. Ia. and II., A., 1154.

Sakai, K. See Shibata, Y. Sakai, T., and Kato, C., synthesis of coumarin derivatives. I., A., 1262.

Sakakibara, I., serum reaction in leprosy; flocculation reaction; kephalin as flocculation reagent, A., 1541.

and Yosinaga, T., determination of choline, A., 1235.

Sakakura, Y., frosting of glass bulbs for incandescence lamps, (P.), B., 739. Frosting of glass bulbs in gradation, (P.),

Sakamoto, M., Ito, S., and Hattori, H., hermaphroditism with growth disturbance, Ā., 1540.

Sakamoto, T. See Yoshimura, K. Sakamoto, Y. See Horiuti, J. Sakata, T. See Nakamoto, M.

Sakato, Y. See Takei, S.

Saklatwalla, B. D., Dunn, H. E., Marshall, A. E., and Southern Mineral Products Corp., sulphating titaniferous ores, (P.), B., 239. Titanium dioxide, (P.), 274. Monocalcium phosphate, (P.), B., 987.

Dunn, H. E., and Southern Mineral Products Corp., treatment of nelsonite

ore, (P.), B., 789.

Sakmin, P., production of 70% ethylene from the ethylene fraction of coke-oven gas by condensation and distillation under a pressure of about one atmosphere, B., 1137.

Sako, S., attempted formation of rings attached to p-positions of the phenyl groups in 2:2'-diphenyldiphenyl, A., 328. Synthesis of 2:2'-diphenylbenzidine, A., 328. 4:5-Di-m-aminophenylcarbazole, A.,

Sakostschikov, A., existence of transverse elements in vegetable textile fibres, B.,

and Tumarkin, D., homogeneity of native celluloses and their derivatives, B., 828.

Sakov, I. A. See Saslavski, I. I.Sakuma, I., and Momose, I., bleaching of Japan wax. III.—VII., B., 158, 799,

Sakuma, K. See Masaki, O.

Sakurada, I., association and molecular polarisation. V. Simultaneous formation of double and triple complexes in dipole association, A., 22.

and Hutino, K., colloid chemistry of rice starch and rice boiling. V., B., 120.

Hutino, K., Tsuneoka, S., and Matsushita, Y., X-ray studies of solid paraffins of Fushun shale oils. I.— IV., B., 178.

and Inoue, R., production of soluble acetyl-starch, B., 469.

Sakurada, I., Kitano, T., and Matsushita, Y., colloid chemistry of rice starch and rice boiling. IV.—VIII., B., 120, 1015.

and Miyaguti, M., kinetics of acetylation of cellulose fibres. V. and VI. Influence of solvent and concentration of sulphuric acid on acetylation velocity in the fibre bundle and ratio of catalytic action of sulphuric and perchloric acids, A., 807.

and Watanabe, I., relation between dissolving power of organic solvents and mechanical properties of films of

cellulose esters, B., 449. Sec also Nakashima, T., and Taniguchi,

Sakurada, K. See Erbring, H. Sakurada, S. See Nakajima, K.

M.

Sakurai, B., electrolytic reduction of N-methyl- and N-ethyl-succinimide, A., 612. Electrolytic reduction of pyrrole, A., 943.

Sakurai, Y., constituents of "miso." VI. Changes in constituents of "miso" during ripening, B., 951.

and Iwamura, I., constituents of "miso." V. Vitamin-B, B., 951.
Sala, S. L., follicular hormone and preg-

nancy diagnosis in women and in the mare, A., 753.

Salageanu, N., determination of carbohydrates in leaves of Euphrasia stricta and of Trifolium pratense, A., 910.

Salah, M. See Nassan, A.

Salani, R., and Fineschi, S., direct determination of fructose, B., 118. Determination of glucose and fructose [in honey], B., 1121. Difficultly hydrolysable substances in honey, B., 1124. and Tistoni, M., reducing substances in

[sugar] diffusion juice, B., 423. Salant, E. O., and Kirkpatrick, D. E., vibration-rotation bands of hydrogen

fluoride, A., 406.

See also Kirkpatrick, D. E. Salazar, L. G., and Calco Chem. Co., catalyst for making contact sulphuric acid, (P.), B., 101.

Salazar, M. T., constitution of capillary layer in solutions of malachite-green, A., 156.

and Sosa, A., solubility and density of some malachite-greens, B., 876. See also Moles, E.

Salgues, R., biochemical modifications and phytopathology; officinal oil of lavender from plants parasitised with Septoria lavandulæ, Desm.; disequilibrium of organic and mineral composition in parasite infections; carbohydrate substances of the leaf of Ampelopsis veitchii, Hort., A., 122, 258, 395. Hydrocyanic acid production by leaves of *Photinia*, Lindl., A., 768. Essential oil of parasiteinfested flower stems of marjoram, A., 911.

Salih, R., hexametaphosphoric acid, A., 1079. Metaphosphoric acids, A., 1350. Salinas, J. G., clarifying quality of the juice of POJ 2878, B., 294.

Salisbury, C. J. See Vickerys, Ltd. Salisbury, L. F., and Anderson, R. J., yeast lipins. III. Lecithin and kephalin,

Salit, P. W., sodium and chloride contents of aqueous and vitreous humour and serum, A., 1532.

See also Leinfelder, P.J.Salkeld, C. E. See McClelland, E. W. Salkind, J. S. [with Tzereschko, V. I.], hydrogenation of acetylene derivatives. XXIII. Dihexylbutinenediol,

[with Zalesskaja, T. E., Rosanov, D. I., and Tschelincev, G. V.], hydrogenation of acetylene derivatives. XXII. Dihydroxycyclohexylacetylene, A., 732.

and Belikova, M., preparation of tetrachlorophthalic acid, A., 331.

and Fundiler, B. M., preparation of diphenyldiacetylene, A., 976.

and Fundiler, F. B., synthesis of diacetylene derivatives, A., 325.

and Zonis, S. A., 1-vinylnaphthalene and certain of its derivatives, A., 1497.

Salle, A. J., and Lazarus, A. S., comparison of resistance of bacteria and embryonic tissue to germicidal substances. Iodine, A., 899.

Salles, G.J., drying apparatus for powdered or granular substances, (P.), B., 576. Sallet, J. See Baudouin, A., and Chab-

Salley, D. J., adsorption of carbon dioxide and of water vapour by paper pulp, B., 268.

Salm, L. See Henglein, F. A.

Salmang, H., and Frank, H., thermal conductivity of refractory materials at high temperatures, B., 835.

and Nemitz, P., effect of graining of magnesite stones on their properties, B., 194.

See also Koerner, O.

Salmina, E. P. See Arbusov, B. A.Salminen, A., enrichment of titania in clays, A., 309.

Salmoiraghi, E., determination of water in tomato conserves, B., 568.

Salmon, H. P. See Expanded Metal Co. Salmon, U. J., and Frank, R. T., quantitative relation between follicle-stimulating and luteinising effects in castrate

and menopause urine, A., 1428.

Salmon, W. D., and Goodman, J. G., efficacy of fats in decreasing vitamin-B requirements, A., 646.

Salo, A. See Qvist, W. Salo, M. See Kodak, Ltd. Salomaa, J. E. See Routala, O.

Salomon, G., kinetics of ring formation and polymerisation in solution, A., 296. Ease of formation of cyclic imines. III. Kinetics of the formation of polymembered rings, A., 940. Kinetics of simultaneous polymerisation and ring formation, A., 1469.

Salomon, H. See Karrer, P.

Salomonsen, K. See Baggesgaard-Rasmussen, H.

Salow, H., and Steiner, W., absorption spectra of oxygen due to interaction forces. I. Absorption bands of the (O₂-

O₂) molecule, A., 653.

Salstrom, E. J., Kew, T. J., and Powell, T. M., thermodynamic properties of fused salt solutions. IX. Lithium chloride in silver chloride, A., 1464.

Salt, H. B., application to urine of Tollens' naphthoresorcinol test for conjugated glycuronides, A., 229. Comparison of certain metals regarding resistance to corrosion by a natural strong brine, B., 841.

Salter, R. M., and Barnes, E. E., efficiency of soil and fertiliser phosphorus as affected by soil reaction, B., 115. See also Lamb, C. A.

Salter, W. T., and Lerman, J., metabolic effects of human thyroglobulin and its proteolytic cleavage products, A., 1565. and Pearson, O. H., enzymic synthesis from thyroid di-iodotyrosine peptone of an artificial protein which relieves

myxœdema, A., 379. See also Scharles, F. H.

Saltmarsh, O. D. See Pringsheim, P. Salvanet, R. See Valette, G.

Salvatori, A., Lapponi, G., and Baglioni, S., possibility of identifying small amounts of galactose as mucic acid, A., 1365.

Salvi, J., and Cunning, G. S., asphalt terrazzo composition and method of laying same, (P.), B., 644.

Salvia, R. See Rivoir, L. Salwin, M. See Jablezyński, K. Salzberg, P. L. See Bousquet, E. W., Du Pont de Nemours & Co., E. I., and Grasselli Chem. Co.

Salzer, F., and Bonhoeffer, K. F., enzymic fission of glucosides in heavy water, A., 520. Incorporation of deuterium into growing organisms. IV., A., 1026. See also Bonhoeffer, K. F.

Salzer, H., and Fischer, R., increased veronal excretion due to alkalis, A., 1293.

Salzer, W. See Bamann, E.

Samaan, A., effect of pituitary (posterior lobe) extract on the urinary flow in non-anæsthetised dogs, A., 526.

and Stella, G., response of the chemical receptors of the carotid sinuses to tension of carbon dioxide in arterial blood in the cat, A., 494.

Samaan, K., eupaverine in relation to papaverine and visammin, A., 892.

Samant, K. M. Sco Heilbron, I. M. Samartzev, A. G. Sco Kurtz, L. J. Samdahl, B., and Weider, C. F., amino-

alcohol esters of acridine-5-carboxylie acid, A., 211.

Samec, M., richness of [paste formation by] starch, B., 808. Soluble amylophosphoric acids and the nature of paste-forming starch fractions, B., 1173.

[with Benkovič, P.], plant colloids. XLII. Influence of crystalloids on state of amyloses, with reference to thread-forming power, A., 288.

[with Ulm, F.], plant colloids. XLIII. Influence of chlorine dioxide on chemical reactions of potato- and wheatstarch, A., 319.

Waldschmidt-Leitz, E., and Mayer, K., enzymic amylolysis. VI. Colour produced in dephosphorylated potatostarch by iodine, A., 1298.

Sameshima, H. See Kato, Tsunetaro. Sameshima, J., and Morita, N., sorption of gases by minerals. V. [Extra-Japanese zeolites. VI., A., 25.

and Sasaki, Tsunetaka, studies of unimolecular films by the ripple method. I. and II., A., 1335.

Samis, C. S. See Hartley, G. S. Samisch, R. See Sampson, A. W.

Sammartino, U., pharmacological and therapeutic action of fresh yeast. I. Effect on blood-indican. II. Effect on blood-sugar, A., 896. Pharmacological action of tannic acid. VI. Minimum lethal dose by intravenous injection, A., 1148. Isomerides of cholesterol and experimental rickets. II. Pharmacological action of isocholesterol, A., 1161. Action of metals on carbohydrate metabolism. I., A., 1291.

Samochvalov, K. N., and Held, N. A., wettability of quartz, calcite, and gypsum by molten sulphur, A., 677; B., 591.

and Koshuchova, O. S., physical chemistry of autoclave process of sulphur melts; formation and destruction of the three-phase sulphur emulsion, A., 794; B., 641.

Samoilovich, A. See Vdevenko, V. Sampietro, C. See Täufel, K.

Sampson, A. W., and Samisch, R., growth and seasonal changes in composition of oak leaves, A., 394.

Sampson, M. B., and Bleakney, W., massspectrograph study of Ba, Sr, In, Ga, Li, and Na, A., 1313.
Ridenour, L. N., and Bleakney, W.,

isotopes of cobalt and their radioactivity, A., 1172. See also Blewett, J. P., and Laden-

burg, R.

Samson, A. M., and Santos, A. C., mercuration of nipasol, a propyl ester of phydroxybenzoic acid, A., 492.

Samson, E. W. See Lamar, E. S. Samson, T., cleaning of sulphite-cellulose preheaters, (P.), B., 539. Nomograph for sulphite lye, B., 980.

Samson-Himmelstjerna, H. O. von, heat content and heat of formation of molten

alloys, A., 1332. Samsonov, P. F. See Tsukervanik, I.

Samuel, J. O., flocculation, B., 964.

and Unifloc Reagents, Ltd., separation from liquids of particles dispersed or suspended therein, (P.), B., 912.

Samuel, L., specificity of scrum-proteins in different animals, A., 746.

See also Roche, A.

Samuel, L. W., and Schofield, R. K., binding of glacial phosphoric acid by proteins of wheat flour, A., 792.

See also Ali, S. N., Asundi, R. K., Haq, M. I., Hunter, R. F., Hussain, S. L., Jan-Khan, M., and Lessheim, H.

Samuels, H., nature and characteristics of lakes and pigments, B., 68.

Samuelsen, G. See Goerner, A.

Samuelson, G. J., and Brown, D. J.,

mercury-mercuric oxide-saturated barium hydroxide and calcium hydroxide electrodes, A., 292.

San Francisco Sulphur Co. See Wieder, F. W.

Yoshiaki, hydration Sanada, 4CaO,Al₂O₃,Fe₂O₃, A., 574. Compression test of concrete by [use of] small test-pieces. II. Comparison of compression of small and common mould concrete, using different aggregates. III. Comparison of compression of concrete and plastic mortar, B., 148. Fine-grinding of cement. IV. Compressive strength of clinker, B., 372. Celite. I. Preparation and hydraulic property of high-celite cement, B., Ġ95.

and Nishi, G., fineness of cement raw mixture. I. Elutriation of particles by means of Shöne's apparatus. II. Fineness and chemical composition of the raw mixture. III. Fineness and chemical composition of clay. IV. Relation between fineness of raw mixtures and alito crystals. V. Effect on cement burning and clinker structure. VI. Effect on cement quality, B., 194, 371. Magnesia content of Portland cement. II., B., 498.

Sanada, Yukikazu. See Onozaki, N. Sanborn, C. E., Hixson, E., Young, H. C., Scholl, E. E., and Stiles, C. F., history and control of the [cotton] boll weevil in Oklahoma, B., 38.

Sanborn, J. R., gums produced by fungi, B., 1173.

Sanborn, N. H. See Kohman, E. F.

Sanchez, J. A., chemical study of functions of ephedrine. I. New method for its determination, A., 201. Colorimetric determination of carbamide; its determination in blood, cerebrospinal fluid, and tissues, A., 459. Sensitive colour reaction of carbamide, A., 597. Semi-micro-determination of carbon in organic compounds, A., 1528.

[with D'Allessio, R. C.], colour reaction of hexoses and their polymerides, and its application to colorimetric determination of glucose in blood, A., 709.

Sanchez, J. V. See under Vazquez Sanchez, J.

Sanchez, P., refining of sugar, (P.), B., 388. Treatment of sugar, (P.), B., 1063*. Sancho, J., catalytic decomposition of N2O,

See also Moles, E. Sand, II. J. S. See Lindsey, A. J.

Sandberg, C. P., Sandberg, O. F. A., and Sandberg, N. P. P., heat treatment of steel tyres or wheels, (P.), B., 329.

Sandberg, M., and Perla, D., nitrogen and sulphur metabolism in suprarenalectom-

ised rats, A., 513.
Sandberg, N. P. P. See Sandberg, C. P. Sandberg, O. F. A. See Sandberg, C. P.

Sandelin, A. E., reaction of ground-water in Finland, A., 1482. Effect of A. I. V. silage on butter quality, B., 666.

Sandell, E. B., determination of chromium, vanadium, and molybdenum in silicate rocks, A., 1353.

Sander, A., removal of toxic constituents

from gas, B., 177.

Sander, E., thermophoric compositions [for heat accumulators], (P.), B., 80. Wound plaster, (P.), B., 348. Production of surgical and sanitary pads, dressings, and bandages, (P.), B., 813.

Sander, F., changes in acidity during biological processes, A., 640.

Sander, R. See Bickel, A.
Sandera, K., conductometric control of
massecuite boiling, B., 710. Determining supersaturation in pan-boiling control, B., 1062.

Sandermann, W. See Wienhaus, H. Sanders, C. E. See Lewis, W. K.

Sanders, F. H., intensity measurements in diffraction of light by ultrasonic waves, A., 1330.

Sanders, G. P. See Burkey, L. A. Sanders, H. G. See Garner, Frank H. Sanders, J. K. See Ketelaar, J. A. A.

Sanders-Dolgoruki, E., colour photography and kinematography, (P.), B., 478, 1132. Colour kinematography, (P.), B., 1132.

Sanderson, I. See Bassett, H. Sanderson, J. A., infra-red absorption of

carbon disulphide at 4.57μ , A., 1179. Sanderson, J. F. See Herty, C. H., jun. Sanderson, J. M., [synthetic-]resin manufacturing equipment, B., 30. Paintplant equipment, B., 509.

Sanderson, L., niobium and its uses, B.,

Sandford, E. J. See Hanson, D. Sandiford, B. R., paracolon group of bacteria, A., 1155.

Sandin, R. B., and Cairns, T. L., formation of cyclic azo-compounds from 2:2'diaminodiphenyls, A., 1525.

Kulka, M., and Woolley, D. W., determination of neutral equivalents of higher fatty acids, B., 1140. See also Thornton, H. R.

Sandler, L. See Berg, W. F. Sando, C. E., Markley, K. S., and Matlack, M. B., constituents of flowering dogwood (Cornus florida), A., 911.

Sandomirski, S. S. See Nikiforov, V. K. Sandor, G_{\bullet} , isoionic point of scrum-proteins. I. Method of determination and results. A., 1008.

See also Boquet, A.

Sándor, Z., [storage of] tomatoes, B., 217. Sands, A. E. See Sweeney, E. L.

Sandstedt, R. M. See Blish, M. J.

Sandström, A. E., screening doublets of X-ray spectra, A., 770. Relative and absolute values of atomic levels, A., 1041. Röntgen absorption spectra, A., 1170. Widths of certain L-absorption edges, A., 1311.

Sandstrom, F. C., and Internat. Harvester Co., cream separator bowl, (P.), B., 722.

Sandulesco, G., and Sabetay. S., p-tert.butylphenol, a substance with the odour of Russian leather, A., 1104. Sec also Girard, A.

Sandvod, K., and Veimo, R., compounds LiCl,o-NH₂·C₆H₄·CO₂H and LiCl,o-OH·C₆H₄·CO₂H, A., 1507.

Sandvoss, C. See under Alexander &

Posnansky.

Sandy, T., screening apparatus, (P.), B.,

Sanero, E., presence of prehnite at Monte Loreto in Liguria, A., 185. Crystallographic study of γ-oximino-β-keto-α-phenylbutane, A., 927.
Sanflippo, E., and Ricca, S., effect of

parathyroid hormone on heat stroke; changes in blood-sugar and calcium and potassium contents of serum, A., 1288.

Sanford, E. P. See Burrows, C. J. Sanford, G. B. See Tyner, L. E.

Sanfourche, A., and Bureau, J., differentiation of constituents of nitrous vapours by formation of nitrogen compounds, A.,

Sanft, G. See under Jahn & Co. Sanft, M. See under Jahn & Co.

Sanft, R.J. See under Jahn & Co. Sanguigno, N. See Fiorentino, M.

Sanielevici, A., calcrimetric measurements of energy of disintegration in the actinium family, A., 658.

Sankaran, G., uric acid crystals in blood plasma of a fowl suffering from pyonephrosis consequent on vitamin-A deficiency, A., 232.

Sanna, G., syntheses in the anæsthetic group. I., A., 330. Halogenated ke-tones. II. Indole. IIIa. Pyrrole, A., 482, 612.

[with Athene, F.], halogenated ketones. IVa. Skatole, A., 482.

Sannié, C., carcinogenic action and absorption and fluorescence spectra of 1:2benzpyrene, A., 664.

Amy, L., and Poremski, V., isolation of the 4358 A. triplet of the mercury arc for use in Raman spectra, A., 663. Oberling, C., Guérin, M., and Guérin, P.,

A., 364.

carcinogenic action of 1:2-benzpyrene,

Sannié, C., and Poremski, V., absorption and fluorescence spectra of derivatives of pyrene and 1:2-benzpyrene, A., 921.

See also Huguenin, R. Sanno, B. See Tocco, L.

Sano, K., dissociation pressure of cupric sulphate pentahydrate, A., 681. Dissociation pressure of magnesium chloride hexahydrate, A., 1339. Reduction equilibrium of silver sulphide by hydrogen, A., 1340.

See also Honda, K., and Iwase, K.

Sano, S. See Ogata, A. Sano, T. See Asahina, Y.

Sansome, F. W., and Zilva, S. S., polyploidy and vitamin-C, A., 254.

Sant, G., has insulin an important effect on serum-albumins? A., 645. Has insulin thrombokiuase-like properties or is it contaminated with the latter? A., 645. Presence of lactic acid in investigation of the stomach contents, after Ewald and Boas, must be ascertained by a limit-reaction, A., 1018. Disturbing colorations in the lactic acid limit reaction for the stomach content, A., 1139.

Santa Cruz Portland Cement Co. See Rice, E. W.

Santarelli, L. See Sestini, Q. Santonoise, D., Brieu, T., Fuchs, G., and Stankoff, E., preparation of crystalline insulin free from vagotonin, A., 902.

Brieu, T., and Stankoff, E., preparation of vagotonin free from insulin, A.,

763.

Drouet, P. L., Franck, C., and Vidacovitch, M., stimulating action of pig's stomach powder on secretion of vagotonin by the pancreas, A., 645.

Merklen, L., Franck, C., and Vidacoviteh, M., vagotonin and adrenalinæmia, A., 900.

Santesson, C. G., arrow poisons, A., 376. Action of alcohol and other poisons on heart inhibition in the frog, A.,

Santholzer, V. See Běhounek, F.

Santi, R., and Zweifel, B., percaine. I. Action on the isolated frog's heart. II. Action on the isolated rabbit's heart; comparison with the action of cocaine: antagonism with adrenaline, A., 758.

Santos, A. C. See Quibilan, G. Q., Samson, A. M., and Villanos, I.

Santos Ruiz, A., mechanism of elimination of vitamin-A, A., 1032. Determination of vitamins by chemical methods. I. Vitamin-A in vegetable and animal oils, A., 1429.

See also Drummond, J. C.Sapegin, F. A. See Sergeev, M. E.

Sapegno, E., action of insulin in pregnancy, A., 1159.

Sapgir, I. N., treating lead concentrates from Valgach ore for chrome pigments, B., 751.

Saphir, W., vitamin-E and the gonads, A., 906.

Sapiro, E. See Swientoslawski, W.

Saposhnikova, E. V., fruits and berries as sources of organic acids, B., 427. and Urinson, R. P., determining organic

acids, A., 744. Sapper, I., heat-resistance of plants, A., 121.

Saprometov. See under Zaprometov.

Sarabia, A. See Guzman, J. Sarata, U., biochemistry of copper. Pigmentation of skin and hair, A.,

Saratovkin, D. D., distribution of impurities on crystallisation, A., 668.

Sarazin. See Vincent, 17.

Sardi, J. L., lacteal secretion through action of anterior pituitary extract in male guinea-pigs, A., 117.
Sardik, Inc., and Cowgill, W. W., pectin, (P.), B., 43*.

Sargeant, E. C. See Plummer, F. B. Sargent, D. L., staining technique for protozoa, A., 760. Sargent, F. G. See Linsley, E.

Sargent's Sons Corporation. See Forty, A. G., and Furbush, F. L.

Saric, R., Lacoste, A., and Aubertin, E., alimentary post-hyperglycemic hypoglycamia in the normal dog, A., 222.

See also Aubertin, E., and Lacoste, A. Sarin, J. L. See Beri, M. L., and Das, B.

Sarjant, R. J., and Middleham, T. H., steels for autoclaves, B., 888.

Sarkar, P. B., electronic theory of valency and constitution of aromatic diazocompounds, A., 602.

and Ray, B. C., constitution of formic acid and formates, A., 663.

Sarkar, S. N. Seo Basu, K. P., and De, P.K.

Sarkar, S. P. See Joshi, S. S. Sarkisov, E. S. See Vagramjan, A. T. Sarkissov, A. K. See Zuverkalov, D. A.

Sarma. See Godbole, N. N. Sarnowiec, W., tubercle bacillus in milk,

butter, and white cheese, B., 1230. Sarnowski, M. See Trzebiatowski, W. Sarre, H. See Kramer, K.

Sart, G. D., and Agoos Leather Companies, ornamented leather, (P.), B., 610. Sartori, G. See Magnus, A.

Sartorius, C. H. See Faith, W. L.

Sartory, A., Sartory, R., Meyer, Jacques, and Merglen, M. J., thermostable activators of bacterial growth from cryptogams, A., 1424.

Sartory, R. See Sartory, A. Sarnp, A. See Singh, Balwant.

Sarzana, G., absorption of gluten peptone and of glutamic acid introduced into a Vella intestinal loop, A., 233. Absorption in phloridzinised animals. I. Absorption of fats, A., 234. Action of pilocarpine and acetylcholine, introduced into a Vella loop, on enteric secretion, A., 376. Determination of calcium diffusing from milk during compensated dialysis, A., 1405.

and Elia, D., action of β -dinitrophenol (1:2:6) on respiratory exchange and temperature of homoothermicanimals.

A., 373.

Sas, L., influence of protein feeding on nitrogenous blood constituents in the

dog, A., 356. Sasaki, N., and Mabnchi, O., para-ortho composition of hydrogen gas produced from hydrogen atoms, A., 573.

and Nakao, T., molecular orientation and probability of excitation and dissociation of the hydrogen molecule by

electron impact, A., 403. and Nishibori, E., ionisation of a molecular beam by electron collision and investigation of the ions produced by the mass spectrograph, A., 657.

Sasaki, N., and Nishibori, E., direct determination of the effective radius of strongly vibrating molecules by tho molecular beam method, A., 657.

Sasaki, Rinjiro, and Ando, N., influence of intermittent supply on growth of albino rats, A., 1142. Active biological factor in cow's milk, A., 1287.

and Kandatsu, M., constituents of horse-chestnut seeds. I. Nutritive value, A., 1307.

and Zaidan Hojin Ryoshoku Kenkyu-Kwai, rolled buckwheat, (P.), B., 122.

Sasaki, Rokusaburo, ossification by means of tissue culture, A., 1145.

Sasaki, Takaoki, and Otsuka, I., dl-tolylalanine and its bacterial decomposition, A., 721.

and Yoshida, Tomizo, production of carcinoma of the liver by feeding o-aminoazotoluene, A., 626.

Sasaki, Tsunclaka. See Sameshima, J.
Saslavski, A. J., Ettinger, J. L., and
Eserova, E. A., reciprocal solubility of aluminium, sodium, potassium, and ferric nitrate in water in presence of nitric acid. II., A., 160.

Saslavski, I. I., ionic equilibrium in solutions, A., 935.

Astascheva, A. A., and Sakov, I. A., relation between volumes of substances in the free state and in solution, A., 27.

Sassa, A. See Shibata, Rin-nosuke.

Sassaman, H. L. See Black, A.

Sastri, B. N., physiology of spike disease of sandal, A., 1306.

and Iyengar, B. A. S., germination of leguminous seeds and urease activity, A., 908.

and Sreenivasaya, M., lipins of fenugreek (Trigonella foenum graecum), A., 1307. Sata, N., colloid synthesis by means of gaseous explosions and colloidochemical investigations on disperse systems so prepared, A., 1198, 1337, 1460.

Satake, S., water absorption of rubbers. I. and II., B., 419.

Sato, Harutaro, and Chino, I., voltinism of the silkworm (Bombyx mori, L.). I. Activity of the lipase in relation to voltinism, A., 244.

Sato, Hiroshi, Ohguri, M., and Wada, M., adrenaline discharge, blood-sugar, and blood pressure during anaphylactic shock in non-anæsthetised and nonfastened dogs, A., 626.

Satow, Y., and Degchi, T., adrenaline secretion and blood-sugar content in dogs anæsthetised with avertin, A., 516.

Sato, K., and Naito, I., acids and alcohols as nutrients for Monascus, A., 1154. Sato, Masanori. See Seto, I., Shinozaki,

Y., and Wada, N.

Satô, Mizuho, thermo-electric effect according to the new electron theory, A., 148. Theory of the relativistic degenerate corpuscular gases and their employment in the atomistic theory of Brownian molecular motion, A., 660. Energy states of valency electrons in some metals. 1. (2) Absolute values of some X-ray levels of zinc, A., 1316. Light pressure and Brownian movement, A., 1337.

Satô, Sadaya, Zeeman effect of the lead line $6p^2$ $^3P_2-6p.7s$ 3P_1 (λ 4058 A.), A., 1310.

See also Okubo, J.

Sato, Shikao. See Kameyama, N.

Satô, T., and Amano, T., equilibrium diagrams of salts for salt baths. V. System BaCl₂-CaCl₂-KCl, A., 1070.

Satoda, I. See Keimatsu, S. Satch, S., specific heat of iron nitrides, A., 20. Heat of formation and free energy of formation of boron nitride, A., 161, 799. Heat of formation and specific heat of aluminium nitride, A., 565. Heat of formation of iron nitrides, A., 565. Phosphorescent beryllium nitride, A., 664. Resistance of nitrided austenitic manganese steel against seawater corrosion, B., 278.

Satow, T., waterproof glue, (P.), B., 291. Satow, Y. See Sato, Hiroshi. Satriano, T., antiseptic action of different

iodine solutions, B., 428.

Satta, G. C. See Molinari, H.

Satterly, J., and Strachan, J. C., measurement of surface tension by means of stationary waves on a vertical jet, A., 447.

Sattler, L., Mull, J. E., and Lorge, I., conductometric determination of soluble and insoluble ash in unfiltered [sugar] solutions, B., 117.

See also Zerban, F. W.

Saturnina, W., absorption spectrum of

dinaphthopyrone, A., 662.

Satyanarayana, K., antimalarial operations in the Vizagapatam harbour-construction arca (1927—1933), B., 46. Sauchelli, V. See Koppers Co. of Delaware. Sauciuc, L. I. See Cândea, C.

Sauer, E., chemistry and the glue industry, B., 383.

and Willach, E., viscosity measurement as a method of testing glue, B., 512.

Sauer, M. E., chlorolytic action of scrum, A., 1432.

Sauerlandt, W., plant-physiological evaluation of phosphoric acid of manures, B., 384. Humus and nutrient supply of German soils during the last ten years, B., 466. Plant-physiological evaluation of the phosphoric acid of stall manure, B., 611. Nitre formation and the reversion of phosphates under the influence of liming and the lime content of the soil, B., 949.

See also Mitscherlich, E. A.

Sauerwald, F. See Holub, L.
Saunders, B. C. See Mann, P. J. G.
Saunders, D. J. See French, S. J.
Saunders, F. J., and Cole, H. H., two gonadotropic substances in mare serum, A., 901.

Saunders, J. A. See Sweek, W. O.

Saunders, O. A. See Lander, C. H. Saunders, S. L. M., [phenol-aldehyde] synthetic resin composition, (P.), B., 337. Compositions containing urea-formaldehyde condensation products, (P.), B., 337.

Saunier, A. See Ricard, R. Sauter, dressing of artificial silk, with special reference to new linseed oil dress-

ings, B., 405.

Sauter, E., complete fibre diagrams, A.,

Sauter, F., removal of crystalline deposits [e.g., boiler scale] on electrically conducting surfaces, (P.), B., 1163.

Sauter, J. D., and Ham, W. R., diffusion

of hydrogen through highly degassed palladium, A., 1333.

See also Ham, W. R.

Sauter, V., and Klonnek, F., hydrogenation of heavy oils to light oils and gaseous hydrocarbons, (P.), B., 1079.

Sauvageot, M., and Rousseau, E., transformation points of nickel steels, B., 63.

Sauveur, A., ageing of steels, B., 598. Savage, E. S., and Crawford, C. H., dry concentrates as partial substitute for whole milk in calf rations, B., 43.

Savage, H. J., chemical apportioning method and apparatus, (P.), B., 963.

Savage, W. S., solution, transportation, and precipitation of manganese, A., 1089.

Savard, J., Raman spectra of methyldiothylcarbinol, benzyldimethylcarbinol, and corresponding olefines, A., 10. Ionisation potentials of the N₂ molecule, A., 399.

Save, J. See Vinas, J. Savel, P. See Joliot, F.

Savell, W. L., and Mathieson Alkali Works, chlorinating device for water, (P.), B., 622.

Saverina, E. See Dubinin, M.

Saviano, M., digestive enzymes of Anemonia sulcata, A., 1296. Proteolytic enzymes in uterine fluid of selachians, A., 1298.

Savina, V. M. See Kobosev, N. I. Savinaev, A. M. See Schapiro, M. J.

Savizki, F. See Kornfeld, M.

Savojski, E. K., and Kosirev, B. M., changes of absorption of weak electric fields of high frequency in certain substances as a function of strength of these fields. I. and II., A., 665.

Savostjanova, M., photochemistry of crystals, A., 1181.

Savron, E., part played by carnosine in muscles, A., 499.

See also Normark, P. Savtschenko, G. S. See Tananaev, I. V. Sawada, K. See Kitagawa, M.

Sawada, M., relative intensities of the X-ray non-diagram lines in the K-series, A., 1169.

Sawamoto, H., equilibrium diagram of the magnesium-rich magnesium-aluminiumsilicon ternary system, A., 559. Equilibrium diagram of magnesium-rich magnesium-manganese binary system, A.,

Sawamura, II., prevention of formation of abnormal structure in carburised steel. I., B., 322.

Sawano, E., digestive enzymes in marine invertebrates. I. Proteolytic enzymes in Polypus vulgaris (Lamarck). II. Proteolytic enzymes in the starfish, Distolasterias nipon, Döderlein, A., 521,

Sawhill, J. M., Mead, G. A., and Ohio Brass Co., [steel] welding rod, (P.), B.,

Sawoniak, B. See Jabiczyński, K.

Sawyer, C. B., Kjellgren, B., and Brush Beryllium Co., production of beryllium and aluminium compounds, (P.), B.,

Sawyer, J. H., jun., shower producing cosmic-ray primaries, A., 1175.

Sawyer, R. A. See Ellis, C. B. Sawyer, S. D. See Blatherwick, N. R.

Sawyer, W. W., second-order focussing for the mass spectrograph, A., 1224.

Saxl, I. J., apparatus for studying elastic properties of filamentous materials. I., A., 183. Determination of stiffness in individual yarns, B., 184.

Saxton, H. L., propagation of sound and supersonic waves in gases, A., 19.

Saxton, J. See Loeb, L.

Sayce, L. A., kinetics of reaction between oxygen and sulphur. I. Reaction at 240—280°, A., 163.

Sayers, R. R. See Yant, W. P.

Sayler, G. H., and Parker Pen Co., permanent brilliantly-coloured writing fluid, (P.), B., 161.

Sayles, B. J., calorised steel article, (P.), B., 459. Aluminised steel articles [heating tubes], (P.), B., 1048.

Sayles Finishing Plants, Inc. See Huey, $H.\ I.$

Saylor, C. P. See Houston, D. F.

Sayre, C. B., and Clark, A. W., rates of solution and movement of different fertilisers in the soil and effects of the fertiliser on germination and root development of beans, B., 340.

and Cumings, G. A., fertiliser placement for cannery peas, B., 806. See also Jenkins, R. R.

Sayre, R. E., and Amer. Smelting & Refining Co., concentration of oxidised minerals, (P.), B., 154.

Saywell, L. G., effect of filter aids and filter materials on wine composition, B.,

Sazerac, R., and Larthe, N., action of derivatives of copper on Treponcmu cuniculi and Trypanosoma brucei, A.,

Sazonova, T. V. See Kirsanov, A.

Sbarski, I. B., rôle of crythrocytes in protein metabolism. III. Distribution of amino-nitrogen between erythrocytes and plasma, A., 1017.

Shorgi, U., gases of borate-carrying softioni, with special reference to their content of helium and other noble gases, A., 183.

Scaff, J. H., and Schumacher, E. E., laboratory vacuum casting furnace, B., 1155.

Scagliarini, G., colour reaction between nitroprusside and sulphites (Bödeker's reaction), A., 177, 301. Chemical reactions for distinguishing various fibrous materials, B., 404.
Scaglioni, C., adsorption of benzene

derivatives by serum colloids and organ pulps, A., 1462.

Scammell, S. E., Continental data concerning natural manure, B., 466.

Scandellari, G. Sco Rossi, Giuseppe.
Scandurra, G. See Specchia, O.
Scanlan, J. T., magenta series. II. Higher basic members, A., 1243. Scaramelli, G. See Bonino, G. B.

Scarf, M., and Israel, S. L., excretion of prolan in essential hypertension, A.,

Scarlett, G. B. See Rufener, H. Scarre, O. C. See Brodski, A. E. Scarth, G. W. Sco Levitt, J.

Scatchard, G., and Benedict, M. A., f.p. of aqueous solutions. X. Dioxan and its mixtures with lithium, sodium, and potassium chlorides, A., 793.

Scattola, (Signa.) M. See Ciocca, B. Schaad, R. E. See Universal Oil Products

Schaaf, F., and Burckhardt, W., detection of intravenously injected substances (especially 1-3:4-dihydroxyphenylalanine) inside epithelial cells; detection of reducing sugar-like substances in the skin of men and animals, by means of silver nitrate, A., 536.

Schaaf, J., clarification and disposal of sewage, (P.), B., 1022.
Schaafsma, A. See Grasset, E.

Schaarschmidt, A., and Antares Trust, Registd., hydrocarbon products containing oxygen, (P.), B., 442.

Schabad, L. M., experimental tumours produced by decreased doses of coal tar; general action of the carcinogenic agent, Ā., 100.

Schacherl, F., and Bêhounek, O., dissociation pressure of copper sulphate pentadeuterate, A., 1339.

Schachnovskaja, S. B., permeability of the cerebrospinal barrier and blood variations in experimental benzine poisoning, A., 1554.

Schachov, G. A., treatment of brass scrap and crude (80-90%) copper at the

Moscow Molotov plant, B., 198.
Schachova, N. G. See Bezzubetz, M. K.
Schachovitsch, K., Jovanovitsch, D. K.,
and Vischnitscheva, M., rôle of the
reticulo-endothelial system in fixation of radiothorium, A., 371. Schachowskoy, T. See Elöd, E.

Schade, W. See Kruber, O. Schaeben, R. See Antropoff, A. von.

Schaeder, J. A. See Steubing, W. Schaefer, A. See Küntzel, A. Schäfer, G. See Kuhn, A. Schäfer, H. See Prausnitz, P. H.

Schaefer, J., operation of coke ovens and

ovens therefor, (P.), B., 678.

Schäfer, K., second virial coefficient of heavy hydrogen, A., 1185. See also Eucken, A.

Schäfer, O., influence of method of preparation and fuel requirements on production of fine coal washings, B., 863.

Schäfer, R. See Drescher, C.
Schaefer, V. J. See Langmuir, I.
Schaefer, W. See Chargaff, E.
Schaeffer, E. R., and Carey Manufg. Co.,

P., manufacture and application of protecting composition for materials; [paint for steel oil tanks], (P.), B., 243.

Schaeffer, J. A., mineral wool and vermiculite as [thermal] insulation, B., 79. Schäffner, A., and Berl, H., fermentative

enzymes. V. Phosphorylation systems of alcoholic fermentation, A., 521. and Krumey, F., fermentation enzymes. VI. Dephosphorylating enzymes of yeast, A., 1557.

See also Bauer, Erwin. Schätzlein, C., and Sailor, E., sorbitol in

pure grape wines, B., 343. Schafer, E. R., Pew, J. C., and Knechtges, R. G., loblolly pine grinding at high

temperatures, B., 635. See also Pillow, M. Y.

Schafer, R. R. Sec Poe, C. F. Schaffeld, W. D. Sec Fischer, G. Schaffer, P. A., and Williams, Ray D.,

sugar determination by the ferricyanide

electrode, A., 126.
Schafmeister, P. See Houdremont, E. Schagalov, A. J., and Dobromilskaja, I. M., production of trichloroethylene from

tetrachloroethane, B., 1032. See also Suknevitsch, J.

Schagrin, H., and Kahn, R. L., cleaning of iron or steel, (P.), B., 602.

Schaible, P.J. See Bandemer, S.L. Schairer, J.F. See Bowen, N.L.

Schairer, W., testing and evaluation of heat-insulating materials, B., 79. Determination of the specific heats of byproducts from coke ovens and gasworks, B., 772.

Schakhov, A. S. See Tschishikov, D. M. Schalaeva, T. V. See Lichoscherstov, M. V.

Schales, O., derivatives of dihydrovanillin; catalytic hydrogenation of nitrostyrenes, A., 332. Anti-anæmic substances of liver. I. Relationship between chemical properties and clinical value of technical liver extracts, B., 347. [Anti-anæmic substance of liver], B., 667.

See also Hahn, G.

Schalfeev, V. M., and Kandidova, E. V., asphalt-pitch compositions as anticorrosivo coverings for pipes, B., 226. Schall, A. See Brintzinger, H., and

Raub, E.

Schaller, W. T., monticellito from San Bernardino County, California, and the monticellite series, A., 307. Schallreuter, W. L. W., electric-discharge

tubes, particularly gas-filled luminous tubes, (P.), B., 845.

Schally, A. O., changes of blood-proteins in salyrgan diuresis, A., 634. Disturbance and regulation of cholesterol metabolism. I. Effect of liver extract on the disturbed cholesterol metabolism. II. Thyroid and cholesterol metabolism, A., 1144.

Schalm, O. W., and Beach, J. R., resistance of the virus of infectious laryngotrachcitis to certain chemical and physical factors, A., 1424.

Schamsiev, A. See Zaprometov, B. G. Schander, H., physiology of lime-chlorosis of lupins, B., 211.

Schantarovitsch, P. S., kinetics of oxidation

of hydrides in the gaseous phase. I. Oxidation of silane, A., 163. Schapak, V. I., determination of tho

Féder number on basis of the chemical

composition of meat, B., 857. Schapatin, V. A. See Ogievski, V. M. Schapiro, A. S., conversion of calcium

carbonate sludge into calcium nitrate,

Schapiro, E., determination of sucrose (especially small quantities) in mixtures with reducing sugars, B., 469. Determination of fructose, glucose, sucrose, and maltose in mixtures, B., 469.

Schapiro, E. S., and Valikov, S. J., results of research carried out in the Central Scientific Wood Chemistry Research

Institute in 1933, B., 625.

Schapiro, M. J., and Savinaev, A. M., absorption of nitrogen oxides by silica

gel, B., 318. Schapiro, S., "faolit," a new acid-resistant plastic mass, B., 205. Asphaltic plastic masses, B., 205. Polishing compositions for plastic masses, B., 751.

Schaposchnikov, V. G., and Kalinitscheva, N. A., determination of water in the alcoholic fractions obtained in tho manufacture of synthetic rubber (condensate and higher alcohols), B., 655.

Schapovalov, M., effect of chemicals on "combination streak" virus of tomatoes,

B., 115.

Schapschinskaja, O. M. See Arbusov, B. A. Scharf, R., vapour density of water, A., 557. Scharff, G., effect of tension on magnetisation [of nickel] above the Curie point, A., 275.

Scharffenberg, E., alloying of cast iron especially for rolls, B., 277.

Schargorodski, S. D. See Fialkov, J. A. Scharles, F. H., Robb, P., and Salter, W. T., physiological validity of enzyme [amylase] determinations in tumour tissue, A., 364.

Scharmann, W. G., Olsen, F., and Cellulose Res. Corp., delignification [of paper pulp], (P.), B., 636.

Scharnagel, T., relations between milling and baking properties of various sorts (races) of wheat, B., 391.

Scharov, V. S. See Laptev, F. F.

Scharpenack, A. E., and Jerjomin, G. P., methionine content of food proteins, A., 509.

Scharrer, K., use of selenium as catalyst in Kjeldahl digestions, B., 164. Effect of micro-elements on plant growth, B., 898.

and Schropp, W., action of follicular hormone on growth of culture plants, A., 257. Effect of lead on plant growth, A., 768. Effect of aluminium

ions on plant growth, A., 1163. Scharschu, C. A., and Allegheny Steel Co., inorganic insulation for electrical [steel]

sheets, (P.), B., 331.

Schartum-Hansen, H. See Laland, P. Schaschkin, I. P. Seo Ognevski, A. F. Schaschkina, T. I. Seo Britzke, E. V. Schatalov, V. P. See Filinov, I. E. Schatilov, F. W., stimulation of develop-

ment of plants and of ripening of their fruit by ethyl alcohol and by temporary asphyxia of the roots, B., 467.

Schatov, G. I., geology and presence of petroleum in northern Ferghana, A., 309. Schattaneck, E., electrodes and electrical contacts, (P.), B., 606.

Schattenberg, H. J. See Harris, W. M. Schattenstein, A. I., acid catalysis in liquid ammonia; kinetics of ammonolysis of santonin in liquid ammonia in the presence of ammonium salts, A., 1075. Technique of polarimetric determination in condensed gases, A., 1084.

and Uskova, L. S., vapour pressure of solutions of acids and salts in liquid

ammonia at 15°, A., 151. and Viktorov, M. M., solubility of solids in liquefied gases; solubility of KNO3 and NaCl in liquid ammonia, A., 1456.

Schatzel, R. A., and Gen. Cable Corp., insulated electric conductor, (P.), B., 556. Schatzkaja, R. K. See Nesmejanov, A. N. Schauffele, E., examination of high-grade alloyed steels, (P.), B., 795.

Schaum, F., and Fletcher Works, Inc., centrifugal, (P.), B., 256. Schaum, K. See Trabert, E. Schavski, T. S. See Branke, Y. V.

Schdanovitsch. See under Shdanovitsch. Schechter, A., homogeneous dissociation of hydrogen molecules by collision with positive ions, A., 4. Sce also Roginski, S.

Schechter, S. See Blochinzev, D. Schecker, G., detection of saccharin in beverages [beer], B., 470. Beet diffusers; their resistance to juice flow, B., 1119.

Scheel, K. C., colorimetric determination of phosphoric acid in fertilisers with the Pulfrich photometer, B., 1059. Scheele, W. [with Rowe, W.], humic acids.

III. Determination in [soil] extracts by conductometric titration, B., 514.

Scheerson, V. B., technical method of dispersion analysis of slimes, B., 413. Scheff, G., metabolism of spirochætes in

vitro, A., 114. Scheffer, F., chemical problems in manufacture of silage, B., 1016.

Scheffer, L., and Megay, L. von, iodine metabolism in goitre, A., 1141.

Scheffers, H., calculation in atomic beam experiments in the electric field, A., 539.

and Stark, J., effect of the electric field on hydrogen atoms in atomic beam experiments, A., 539.

See also Justi, E.

Scheflan, L. See Olsen, J. C., and Yant,

Scheibe, G., and Rivas, A., physical methods in chemical laboratories. XXXII. New method of quantitative emission spectrum analysis, applicable also as a micro-method, A., 1084.

and Schöntag, A., quantitative analysis of aluminium alloys, B., 327.

See also Hammerschmid, H., and Milazzo, G.

Scheiber, J., possible oil economics, B., 286. Stand-oil formation, B., 892.

and Baier, O., solution state of filmforming substances, A., 677.

and Sändig, R., aqueous resin soap solu-

tions, B., 461.

Scheibler, H., and Depner, M., compounds of bivalent carbon. XI. Carbon monoxide acetal fission of esters and amides of diphenoxyacetic acid during chemical reactions. XII. Thermal carbon monoxide acetal fission of diphenoxyacetic acid and its derivatives. XIII. Diphenoxymethyl chloride (formyl chloride diphenyl acetal) and its transformation into tetraphenoxyethylene (dicarbon monoxide tetraphenyl acetal), A., 66. Ester enclates and keton acetals. XIX. Diphenylketen diphenyl acetal, and phenyl diphenylvinyl ether, A., 67.

and Schmidt, H. J., compounds of bivalent carbon. XIV. Bromodimethoxymethane (formyl bromide dimethyl acetal) and its reaction with

sodium triphenylmethyl, A., 312. Scheiblich, O., iron content of basic Bessemer slags for different blowing periods,

B., 696.

Scheidt, A. W., Folger, R. C., and Electric Smelting & Aluminum Co., recovery of alumina from aluminous silicious materials, (P.), B., 101. Scheidt, V. von, determination of best

quenching temperatures for duralumin,

B., 279.

Scheifele, B., corrosion prevention and paint, B., 29. Turpentine as a varnish material, B., 649. Theory of oil-film formation, B., 701. Topical structure of oil molecules and the filming process, B., 894. Technical importance of turpentine in varnishes and wax compositions [polishes], B., 1108.

Scheil, E., geometrical theory of hetero-geneous equilibria, A., 565. Representation of ternary systems, A., 1070. Statistical investigations of structure [of metals and alloys], B., 196. Testing of east iron for growth-stability, B., 1155. Artificial production of metal nuclei in solidifying metals, B., 1158.

and Kiwit, K., influence of alloying elements on scaling of iron, B., 599. See also Förster, F., and Püngel, W.

Scheiner, H. See Broun, D., and Gautrelet,

Scheiner, K. See Müller, Reinhard. Scheinman, A. B. See Dubrovai, K. K. Scheintzis, O. G. See Gaptschenko, M. V. Schell, C. See Guillemet, R.

Scheller, E., improvement of cellulose, (P.).

Schellong, F., "soya water-bread" and use of soya meal in treatment of diabetes and corpulence, A., 505.

Schelpakova, K. See Perov, S. S. Schemiakin, F. M., emission wave theory of periodic reactions. VIII., A., 27. Natural classification of chemical compounds. II., A., 141. Use of topology and invariants to describe chemical reactions, A., 172. Natural classification of chemical compounds,

Fokina, E. A., and Michalev, P. F., physico-chemical analysis of periodic

reactions. VI., A., 156.

and Lazareva, A. I., undulating cracks and periodical crystallisation in gelatin gel in the formation of mercuric carbonate, A., 1462.

and Michalev, P. F., investigation of periodic reactions by application of physico-chemical analysis, A.,

156.

and Neumolotova, A., colorimetric determination of titanium by means of gallic acid, as compared with the hydrogen peroxide method, A., 44.

and Vaschedtschenko, T. V., colour reactions of rare-earth metals with pyrogallol and gallie acid. II., A.,

and Vitt, A. A., theory of physicochemical periodic processes, A.,

See also Vitt, A. A. Schemiakin, M. M. See Kanevskaja, S.J., and Voroschcov, N. N.

Schenck, E. G., dependence of the composition of the blood-plasma and serum on the nature of the diet, A., 1008.

Schenck, F., 6-keto-3:5-diacetoxycholc-stane, A., 1383.

See also Windaus, A.

Schenck, H., and Brüggemann, E. O., chemistry of the acid open-hearth [steel] process, B., 887.

and Riess, W., chemistry of the basic

steel processes; B., 1097.

Schenck, M., bile acids. XLVII. Preparation of the compound C₂₁H₃₀O₁₀N₂ (bilianic acid series). XLVIII. Production of the compound C31H36O10N (bilianic acid series); action of nitric acid in oxidations. XLIX. Oxidation product of bilianic acid; effect of carbamido on oxidations with nitric acid, A., 74, 605, 1109.

Schenck, R., contact question as an equilibrium problem, A., 1211. Comminution and chemical affinity, A.,

1464.

Schmahl, N. G., and Ruetz, O., system manganese-carbon and the carburising of manganese alloys, A., 1061.

Schenectady Varnish Co., Inc. See Wright, W. H.

Schenk, D., electron-optical investigations of glow emission of nickel in casium vapour, A., 537.

See also Mahl, H. Schenk, Martin. See Müller, Richard.

Schenk, Max, optical rotation of tartaric acid in presence of titanium ion, A., 1051. Colour reactions of ter- and quadrivalent titanium, A., 1083. Colorimetric determination of titanium, A., 1354.

Schenk, P. W., and Platz, H., new exide of

phosphorus, A., 1475. Schenkel, H. Sce Erlenmeyer, H.

Schepelcva, E. S. Sco Skvortzov, V. N. Schepens, C. See Handovsky, H.

Schepilevskaja, N. E., antiscorbutic properties of pine needles. V. Effect produced on vitamin-C content of pine needles when cut pine branches are

kept for a short time, A., 120.
and Isumrudova, T. L., sources of
vitamin[-C]. XI. Preserved spinach.
XII. Onions, B., 121.
Scherbakov, M. K. Sco Harnisch,

A. M.

Schere, S. See Costa, N. P.

Scherer, M. See Piekara, A. Scherer, R., and Zieler, W., defects in steel,

Schereschevskaja, I. S., determination of small amounts of hydrogen sulphide in air, A., 811.

Schereschevski, I. L., analysis of the system NH₂CO₂NH₄, NH₂CO₂Na, NH₄Cl, NaCl, and adsorbed NH₃, A., 578. Analysis of sulphide-hydrosulphide lyes, B., 639.

See also Ostrovski, I. N.

Scherillo, A., basalts of Guiliana and Contessa Entellina and their alteration; petrographie investigation, A., 959. Inclusions in puzzuolanas of middle

Aniene valley, A., 1228.

Schering-Kahlbaum Akt.-Ges., cestrogenous products, (P.), B., 44. Cyclic a-cyano-ketimides and cyclic cyanoketones, (P.), B., 139. Acyloctahydrofollicle mones, (P.), B., 172. Purification of erudo extracts of the germinal gland hormones and isolation of the latter therefrom, (P.), B., 172. Heterocyclic compounds, (P.), B., 446. Pregnanolones, (P.), B., 476. Reduction products of the male sexual hormone and similar substances, (P.), B., 524. Acyloctahydrofollicle hormones, (P.), B., 620. Substances of hormone action, (P.), B., 716. Phenyl mercurinitrates, (P.), B., 825. Sterol derivatives, (P.), B., 908. Ketocyclopentanodimethyltetradecahydrophenanthrol, (P.), B., 908. Physiologically active derivatives of cyclopentanophenanthrol, (P.), B., 908. Products containing intermediary ferments of metabolism, (P.), B., 1017. Purified germinal gland hormone preparations, (P.), B., 1017, 1129. [Regeneration by filtration of] electroplating baths, (P.), B., 1050. Physiologically active derivatives of cyclopentanophenanthrol, (P.), B., 1068. Unsaturated hydroxy-ketones related to the corpus luteum hormone, (P.), B., 1129. Unsaturated diketones related to the corpus luteum hormone, (P.), B., 1129. Purification of products containing intermediate ferments of metabolism, (P.), B., 1130. [Halogenated] derivatives of androstenols, (P.), B., 1130. Esters of polycyclic alcohols, (P.), B., 1178, 1234. Acyl derivatives of germinal gland hormone preparations, (P.), B., 1178. Cholenie acid or its lower homologues and their derivatives, (P.), B., 1234. Acyl compounds of polycyclic alcohols of the cyclopentanopolyhydrophenanthrene series, B., 1234. Complex double compounds organic heavy-metal mercapto [thiol] compounds, (P.), B., 1235.

Schering-Kahlbaum Akt.-Ges., Meerwein, H., Ulffers, F., Erbe, R., Aichner, F., and Klaphake, W., catalyst [for conversion of terpenes], (P.), B., 368.

Schotte, H., and Görnitz, K., insecticidal preparation, (P.), B., 1224.

Scherlin, S. M., o-chlorobenzaldehyde diacetate, A., 987.

and Berlin, A. J., arsenical derivatives of carbazole, A., 89. and Velitschkin, V. S., action of ay-

chlorobromopropane on 2-aminopyrid-

ine, A., 738.
Scherp, H. W., autoxidation of substituted difluoryls and dixanthyls, A., 715.

and Rake, G., meningococcus infection. VIII. Type I specific substance, A., 641. Scherpenberg, A. L. van, disinfection of beet seed, B., 709.

Scherrer, J. A., distillation and separation of arsenic, antimony, and tin, A., 812. Determination of gallium in aluminium, B., 327,

Scherrer, P., Staub, H., and Wäffler, H., apparatus for prolonged registration of intensity course of cosmic radiation, A., 1441. See also Herzeg, G.

Scherrer, W. See Stoll, M.

Scherschever, J. M., Brodski, A. E., and Sluckaja, M. M., exchange reactions of hydrogen with deuterium. II. Exchange in sulphuric acid and in sedium hydroxide, A., 160.

See also Brodski, A. E.

Schertz, F. M., continuous distilling apparatus, A., 46.

Schertzinger, C. B. See Flynn, E. J. Scherzer, O., neutrino theory of light, A., 133.

Scheuer, E. See Linicus, W. Scheuer, F. See Göler, F. K. von. Scheuer, F. See Göler, F. K. Scheuer, M. See Spengler, O.

Scheunert, A., and Schieblich, M., vitamin content of beer, A., 119. Production of vitamins by Aspergillus oryzæ, A., 1027.

Scheuring, H., calcium metabolism in first phase of blood clotting. III. Mechanism of thrombin formation, A., 358.

Scheurle, B. See Rohmann, C.
Schevelev, V. A. See Magidson, O. J.
Schevtschenko, E. P., sulphur content of
Donetz coals, B., 964.

Schibaev, S. V. See Plaksin, I. N. Schichikov, D. M., and Sokolov, M. N., use of pure oxygen in lead refining, B., 199.

Schichtel, G., and Amer. Magnesium Metals Corp., [magnesium] alloys, (P.), B., 239. Schichtel, K. See Grunert, A.

Schickh, O. von, [application of the Friedel-Crafts reaction to methoxydiphenyl ether], A., 465. Condensation products of glucidic acid derivatives with amines, A., 828. Lignin reactions, B., 635.

See also Binz, A. Schicktanz, S. T. See Mair, B. J. Schidkov, A. A., technical utilisation of

acid waste waters, B., 862.

Schidrowitz, P., rubber derivatives, B., 511. [with Redfarn, C. A., and Philpott, M. W.], modified rubbers. V. Technological properties of chlorinated rubbers from latex. V (a). Properties of rubber oxidation products, B., 656.

Schiebl, K., practical heat economy, B., 175. Schieblich, M., and Pallaske, G., toxic action of percutaneously-applied irradiated wool-fat preparations in the sense of hypervitaminosis-D, A., 891.

and Vlassopoulos, V., vitamin content of Greek fruit. I. Figs. II. Carob beans. III. Sultanas. IV. Grapes, B., 904. See also Scheunert, A.

Schiebold, E., natural and synthetic emerald, A., 959.

Schiedrum, O. See Darapsky, A.

Schiedt, B. See Maurer, K.

Schiefer, H. F., and Taft, D. H., mechanical properties of cotton yarns, B., 230.

Schieldrop, B. H., construction of water-

cooled furnace walls, (P.), B., 303.
Schiemann, G., and Ley, E., aromatic fluoro-compounds. XXI. "ortho-effect" in the "2-fluoro-1-nitronaphthalene" of Willstaedt and Scheiber, A., 835.

Schierholtz, O. J., does paper quality affect gilt ink ? B., 94.

and Staples, M. L., vapour pressure of glycols, A., 279.

See Ontario Res. Foundation. Schieszl, K. J. von. See Zinke, A.

Schieweck, E. Sco Bertram, J. Schiff, S. See Dieck, W.

Schiffler, H. J., filling material [steel] for welding scale-resisting steels containing

aluminium, (P.), B., 153.
Schifrin, A., Tuchman, L., and Antopol, W., blood-amylase response to acetylβ-methylcholine chloride in rabbits, A., 1414.

Sehikorr, G., atmospheric rusting of iron, B., 411.

See also Bauer, O.
Schilaeva, L. V. See Moor, V. G.
Schild, E. [with Löther, A., and Geiger, O.], chemical changes in wort composition during sparging, B., 1228.

and Enders, C., specificity of the phenol reagent of Folin and Ciocalteu for determination of tryptophan, A., 1281.

Enders, C., and Spiegl, A., adsorptive power of [wort] sediment for heavymetal salts, B., 1013.

and Geiger, O., possible final attenuation of beer wort and its determination, B., 901.

and Stricker, F., determination of tryptophan in beer wort, B., 1064.

Schild, H., alkaloid of Stemona sessilifolia, A., 350.

See also Daly, I. de B.

Schilde Maschinenbau Akt.-Ges., B., multiple-stage dryers, (P.), B., 815.

Sce also Kiesskalt, S.
Schildhauer, W. E. See Heyroth, A. H.
Schilianski, Z. G. See Berkman, J. P.

Schilinsky, S., effect of alcoholic fermentation on essential oils, B., 171. Schille, J. L. See Vahlteich, H. W.

Schiller, J. G., paper, (P.), B., 927. Schilling, A., and Dehio, H., fine-grain developers, B., 348.

Schilling, H., gaseous inclusions in glass,

Schilling, J. See Bickel, A. Schilling, K., drawing and examination of water samples, B., 574. Corrosion by water and its prevention, B.,

Schilling, W. Sec Wehnelt, A.

Schillinger, A., water purification in fish

ponds, B., 814.

Schilov, E. A., and Jakimov, G. I., condensation of acetaldehyde to aldol; production of butadiene from aybutylene glycol, B., 822.

and Kanjaev, N. P., kinetics of addition of hypochlorous acid to double linkings. I. Crotonio acid, A., 34.

and Solodushenkov, S. M., velocity of hydrolysis of chlorine, A., 1345.

Schimmel, F. See Agde, G.

Schimmel, H., normal vibrations and the isotope effect of molecules of the type X_2Y_N with an N-fold axis of symmetry, A., 1185.

Schimmer, L. See Dziewoński, K. Schimoda. See under Shimoda. Schimpff, G. W. See Glattfeld, J. W. E.

Schimunek, J. See Kirschbaum, Emil. Schindler, H., presence of norstictic acid in the tree lichen Lobaria pulmonaria (L.),

Hoffm., A., 910. Schinke, F., cupola or blast furnaces [for iron smelting], (P.), B., 1161.

Schintlmeister, J., and Stetter, G., disruptibility of light elements investigated with the double-tube electrometer, A., 1045.

Schiödt, E., gastro-intestinal symptoms of

vitamin(-B) deficiency, A., 253. Schioppa, L., vitamin-E. IV. Influence on fertility and condition of the young. V. Entropic and anti-sterility activity of wheat-germ oil in comparison with other vegetable oils, A., 392, 1568.

Schirm, E., substantivity [of dyes], B., 183. Schirmer, L., [high-pressure] electrolytic gas producers, (P.), B., 203.

Schirokov, N. V., and Milovidova, M. K., determination of starch in sausage, B., 121.

and Mindlina, D. S., determination of lead in meat preserves, B., 121.

and Volovinskaja, V., titrimetric determination of nitrogen in ammonium salts and food-stuffs, B., 100.

Schischakov, N. A., anomalous structures of fine crystallino silica, A., 413.

Schischkin, K. N., and Wasserman, caking and expanding of coals, B., 82. Schischkin, S. V. See Davankov, A. B.

Schischkin, V., Dnbkov, J., and Krasnopolskaja, E., influence of pressure on electrode potential in electrolysis of water. III., A., 1207.

and Karnauch, E., influence of pressure on electrode potential in electrolysis of water. IV., A., 1342.

Schischkov, A. P., fires at the Ural copper pyrites mines and their probable origin, B., 324.

Schischkov, V. P. See Klinov, I. J. Schittenhelm, A., and Bühler, F., influence of hormones of the anterior and posterior lobes of the pituitary, the thyroid, and the adrenals on spontaneous creatinuria of endocrine disturbances, A., 388. Influence of sex hormone on spontaneous creatinuria of endocrine disturbances, A., 388.

Chrometzka, F., and Spieker, W., hormonal equilibrium and hormonal derangement in the interferometric picture of the serum, A., 385.

and Eisler, B., occurrence of thyrotropic hormone in the central nervous system and cerebrospinal fluid, A., 387. Transmission of thyrotropic hormone through the placenta and milk, A., 387.

Schivazappa, M. See Fester, G. A. Schjänberg, E., velocity of alkaline hydrolysis of crotonic esters, A., 166. Heats of combustion and refractivity data of crotonic esters, A., 551.

Schjöth, E., hard-metal alloys, (P.), B., 553. Schkatelov, V. V., preparation of abietic acid, B., 651.

Schkodin, A. M., rôle of wetting in the drying of Berlei glue on different materials, B., 850.

Schlaanstine, R. F. See Hercules Powder

Schläpfer, P., practical application of results of physico-chemical research in the Swiss gas industry, B., 724. Behaviour of eternit tubes towards various chemical agents and the use of eternit for making outlet pipes of gas-consuming apparatus, B., 818.

Schlag, H. See Burr, A. Schlee, R. See Hönigschmid, O.

Schlegel, H., determination of very small amounts of iron in silicic acid, with special reference to quantitative spectral analysis, A., 953.

See also Brintzinger, H. Schleich, L. See Glazunov, A.

Schleicher, A., analytically useful efficiency of chemical reactions, A., 1080.

and Brecht-Bergen, N., microchemical spectral analysis in high-frequency spark, A., 41.

and Kaiser, N., stand for spark gap and interrupted arc, A., 814. Qualitative micro-analysis by electrolysis and spectrography; analysis of a mine

water, B., 1022. Schleimer, O. J. See Roesch, K.

Schleiss, E. See Hartner, F.

Schlemmer, F., and Wirth, P. H. A., determination of constituents of ergot by different methods, B., 347.

Schlenk, F. See Euler, H. von.

Schlesinger, A. See Fellinger, K.
Schlesinger, H. I., Horvitz, L., and Burg,
A. B., boron hydrides. V. Ethyl- and A. B., boron hydrides. V. Etnyiammonia on methyldiboranes,

Schlesinger, M., centrifuging in rotating hollow cylinders, A., 1355. Feulgen reaction of the bacteriophage substance, A., 1424.

Schlesinger, N., displacement of equilibrium by substances which simultaneously act as catalytic accelerators. III., A., 1462.

Schless, G., coloured plates from mixtures of hydraulic binding agents and fibrous substances, (P.), B., 1208.

Schletz, F. A., mixing machines, (P.), B., 961.

Schliachover. See Rogovin, S. Schlichting, W. G., air-conditioning of

paper and printing plants, B., 830. Schliephake, E. See Haenlein, E.

Schligin, A., and Frumkin, A., platinum electrode. I. Capacity of platinised platinum in different electrolytes and electromotive behaviour of adsorbed hydrogen, A., 1207.

Frumkin, A., and Medvedovski, V., platinum electrode. II. Adsorption properties of the platinum electrode,

A., 1466.

Schlitt, J. L., and Air Reduction Co., separation of constituents of gaseous

mixtures, (P.), B., 257. Schlivitch, S., and Nikolitch, D., photochemical sensitivity of mercuric nitrate, A., 687.

Schloemer, A., activity of non-pathogenic bacteria in thermal water of Aix-les-Bains and Aix-Burtscheid. II., A., 698. Properties of milk-amylase and their modification by other milk constituents, A., 750. Effect of temperature and $p_{\rm H}$ on a-amylase of cow's milk, A., 1024. Geological significance of thermophilic bacteria, A., Ī226.

Schlötter, M., formation of dense, highly lustrous and impervious [electrolytic] deposits of nickel, (P.), B., 155. Bright [electrolytic] deposits of metals, B., 202. Electrolytic tinning [of wire], B., 551. Electrolytic production of bright metallic deposits, (P.), B., 1050. Electrolytic production of bright deposits of tin, (P.), B., 1050.

Schlosberg, M.A.See Uschakov, M. I.

Schlosser, H. A., [sugar-juice] filtration tests with kieselguhrs, B., 294.

Schlossmacher, K., and Klang, H., maxixe beryl, A., 49.

Schlossmann, H. See Blaschko, H.

Schlubach, H. H., and Loop, W., fructose anhydrides. XVII. Constitution of sinistrin, A., 1096.

Schluchter, A. W., and Gen. Motors Corp., bearing-metal alloy [bronze], (P.), B.,

Schlünz, F. K., lias clay from Dobbertin [Mecklenburg], A., 50.

See also Correns, C. W Schlüter, E. D. S., and De Miranda, J., road materials and road-making, (P.), B., 373.

Schlüter, H., dilatometer for wide range of temperature, A., 1225.

Sce also Merten, H.

Schlutz, F. W., Morse, M., and Hastings, A. B., acidosis as a factor of fatigue in dogs, A., 512.

Schmacks, IV., absorption and dispersion of short electric waves in solutions of electrolytes in glycerol, A., 1466.

Schmahl, N. G., and Knepper, W., thermal separation of gas mixtures and its significance in the measurement of chemical equilibria; measurement data for the systems H_2 - H_2 S and Ag-S-H, A., 1338. See also Schenck, R.

Schmalenbach, A., apparatus [saturator] for production of ammonium sulphate,

(P.), B., 233.

Schmalfeldt, H. See Wintershall Akt.-Ges. Schmalfuss, H., and Rethorn, H., determination of diacetyl, A., 55.

and Werner, H., treatment of tissue of marine animals, (P.), B., 570. Treatment of flesh and other tissue of

marine mammals, (P.), B., 619. Werner, H., and Gehrke, A., ketone VII. formation in purified fats. Judging nutrient value of fats by their ketone contents, B., 378. Aldehyde formation in purified fats. I. and II., B., 846, 1105.

Schmalfuss, K., apparatus for extraction on a very small scale, A., 581. Weed flora and soil reaction, B., 35. Physiology and nutrition of flax in respect of fibre and oil production, B., 1171.

and Micheel, H., properties of linseed oil in relation to mineral-salt nutrition

of the plant, B., 36.

Schmatolla, O., odour of iodoform in mineral waters containing iodine, B., 910. Preservatives in pharmacy and cosmetics; boric acid is not a preservative, B., 1067.

Schmeisser, M. See Schwarz, R.

Schmeling, F., detecting and separating sulphur compounds in bituminous and brown-coal tars, petroleum, and their derivatives, B., 727. Utilisation of sulphur compounds obtained from mineral oils, B., 1076.

Schmelzer, C., determination of dielectric constants and dipole loss at high frequencies. V. Determination of losses in different liquids by the thermometer method, A., 549.

Schmid, A. W. See Paxton, E. W. Schmid, E., metallic crystals, A., 555. See also Boas, W., and Goens, E.

Schmid, F., site of formation of conjugated glycuronates in the organism, A., 1546.

Schmid, Fritz, reduction of oil usage in white paints, B., 335.

Schmid, G., ultrasonic waves and chemical investigation, A., 417.

and Erkkila, A. V., high-frequency conductivity of colloidal electrolytes. I. Congo-red and Congo-blue sols, A., 1461. High-frequency conductivity of colloidal electrolytes. II. Alkali and alkaline-earth cascinates, A., 1466.

Schmid, H. See Demeter, K. J. Schmid, H. (Wien), thermodynamics of intermediate reactions, A., 1069.

See also Abel, E.

Schmid, J. See Grimmer, W.

Schmid, K., countercurrent reaction or washing of two liquids, with particular reference to the washing of nitroglycerin, B., 1182.

Schmid, L., amber, B., 704.

and Körperth, H., pigment of the corn poppy (Papaver rhaas, L.), A., 1572. Investigations of extracts of blossoms, A., 1572.

See also Späth, E.

Schmid, O. See Franke, A., and Ruggli, P. Schmid, Resző, predissociation limit of CO at 11 6 volts, A., 272. Zeeman effect in the atmospheric oxygen bands; production of a strong magnetic field over a length of 80 cm., A., 397. Significance of electron collision experiments with CO and bond energy values of C·C and H·C from the assumption D(CO) = 6.9 volts, A., 667. Dissociation products of the CN molecule assuming a dissociation energy of 6.9 volts for CO, A., 667. Collision potentials of C⁺ and C⁺⁺ ions in CO₂ deduced from D(CO) = 6.9 volts, A., 775.

and Gerö, L, predissociation in the $A^1\Pi$ level of CO; dissociation energy of carbon monoxide at 6.9 volts? A., 661. Rotation constants of the IV positive carbon monoxide bands, A., 1177.

See also Bozóky, L.

Schmid, Rudolf, behaviour in the body of peat extracts (humic substances) after oral or intravenous administration, A., 234.

See also Moncorps, C.

Schmid, W., mould growths in moist groundwood, B., 62.

Schmid, W. E., and Müller, E. A. W., röntgenographic detection of lattice deformation in cold-deformed nickel, A.,

Schmid-Burgk, W., Pivovarsky, E., and Nipper, H., apparatus for measuring the electrical conductivity of liquid cast iron, B., 1163.

Schmldlin, J., fractional distillation of mixtures of substances, (P.), B., 480. Schmidt, A. See Grube, G.

Schmidt, Albert, detonation of explosives and relation between density and detonation velocity, B., 1181.

Schmidt, A. W., application of lignite derivatives as Diesel fuel, B., 866.

Schmidt, C. L. A. See Dalton, J. B.,

Tomiyama, T., and Winnek, P. S.
Schmidt, C. R., Greengard, H., and Ivy,
A. C., comparison of methods for determining diastase in duodenal fluid, A., 1297.

Jones, K. K., and Ivy, A. C., method of determining total pigment in bile applicable to "biliverdin" biles, A., 1536.

See Dietzel, R. Schmidt, E.

Schmidt, E. (Dantzig), measurement of small pressure differences at high absolute pressures, A., 1482.

Schmidt, Erich, Jandebeur, W., Hecker, M., Schnegg, R., and Atterer, M. [with Hahn, W., and Pedlow, J. W.], cellulose of native composition from cotton wool. II., A., 458.

Schmidt, Ernst, cylinder plant for drying paper or paper stuff, (P.), B., 231. Schmidt, E. A., effect of addition to [wheat]

flour and dough on gluten, B., 519. Bread competitions as a method of raising

the quality of bread, B., 1014. Schmidt, E. K. O., investigation of fiftyeight painting systems for protection of wood in aircraft construction, B., 546.

Schmidt, E. R., migration of Hungarian

hydrocarbons, A., 450. and Waters, R. M., cyclopropane anasthesia: post-operative morbidity in 2200 cases, A., 107.

Schmidt, E. X., and Cutler-Hammer, Inc., calorimetric method and apparatus adapted for gas-mixing control, (P.), B., 583.

Schmidt, F., purification of starch milk and manufacture of potato starch, B., 517. See also Uhland, W.

Schmidt, G. Sce Pentimalli, F. Schmidt, G. (Leiden). Sce Keesom, W. H. Schmidt, Gerhard, chemical difference between protein-linked and free nucleic acid, A., 521. Effect of nucleophosphatase on thymus nucleohistone, A.,

Schmidt, Hans, and Winthrop Chem. Co., complex metallic compound of saturated aliphatic hydroxy-carboxylic acids containing the metal in its higher state of

valency, (P.), B., 1141. Schmidt, Harry, and Schulz, L., stercoisomerism in the fenchol series, A., 1578.

Schmidt, H. H. See Voit, K.
Schmidt, H. J. See Scheibler, H.
Schmidt, I. G., excretion of theelin in urine of guinea-pigs with irradiated

ovaries, A., 527.
Schmidt, J. See Butenandt, A.
Schmidt, J. H., [alkyd] artificial resin composition, (P.), B., 1111.

Schmidt, L., mechanism of action of sulphur and mud baths, A., 106.

Schmidt, M., apparatus for separating gas and vapour from a mixture of gas and vapour and liquid flowing through a tube, (P.), B., 1024.

Schmidt, Martha. See Romhanyi, J. Schmidt, M. R. See Standard Oil Co. Schmidt, O. (Breslau), forensic detection of

blood, A., 745. Schmidt, O. (Ludwigshafen), determination of conditions for inelastic collision with the aid of slow K+ ions, A., 263. Collision of K+ ions with inorganic and organic gases. III. Effective cross-section [of particles] and area of mass-spectrographic distribution curves, A., 263.

Schmidt, O. (Ludwigshafen), theory of homopolar valency; significance of the fission rule for olefines and radicals, A., 667. Reaction mechanism. VII. Rate of catalytic hydrogenation of doubly linked carbon in chain molecules in solution, A., 807. Interpretation of the rules of fission, A., 1228.

Schmidt, Richard, production and uses of lead-base bearing metals, B., 501.

Schmidt, Rudolf, and Groh, E., water-gas and synthesis gas, B., 354.

See also Groh, E. Schmidt, S., properties of dried diphtheria toxin-aluminium hydroxide complex, A., 224.

and Hansen, A., complex of foot and mouth disease virus with alumina and its pathogenic and immunising properties, A., 641.

See also Hansen, A.

Schmidt, T. (Heidelberg), spectrographic detection of metal traces in experimentally produced current contact marks, A., 951.

Schmidt, T. (Potsdam), electric quadruple moment of the nucleus ¹²⁷₅₃I, A., 1316. Magnetic nuclear moment of platinum, ¹78Pt, A., 1442.

See also Schüler, H.

Schmidt, T. W., photo-electric colorimeter,

Schmidt, Walther, and Spitaler, P., advances in and present position of the use of electron metal, B., 1160.

Schmidt, Werner, epithelial regeneration by the action of the estrogenic hormone and in avitaminosis-A, A.,

Schmidt, Wilhelm. See Brezina, E.

Schmidt, W. I., orientation of crystallites in tooth-enamel, A., 1010.

Schmidt-Hebbel, II., and Pavez, I. S., preparation of colloidal sulphur, B., 541.

and Vilina, S. L., pharmaco-chemical examination of ferrous oxalate, B.,

Schmidt-Nielsen, Signe, and Schmidt-Nielsen, Sigval, feeding deuterium oxide to rats, A., 1549.

Schmidt-Nielsen, Sigval, Flood, A., and Stene, J., size, fat, and vitamin-A content of liver of some cartilaginous fishes, A., 225. Size and vitamin content of liver of various animals, A., 389. Size of liver of Teleostei, and their fat and vitamin-A content, B.,

Flood, A., Stene, J., and Sørensen, N.A., vitamin-A storage of Macrurus rupestris, A., 389.

See also Schmidt-Nielsen, Signe.

Schmidt-Thomé, J. See Butenandt, A., and Westphal, U.

Schmiedt, E., glucose exchange in liver diseases. II., A., 506.

See also Meier, R.

Schmitt, F., distribution of ions between plasma and erythrocytes, in normal and hypochloræmic diabetics, in nephirits, and in intestinal diseases, A., 1141.

and Basse, W., effect of bleeding on distribution of ions between erythrocytes and plasma in health and in hypertony and nephritis. I., A., 1135. Mineral exchange between plasma and erythrocytes in Addison's disease, A., 1140.

Schmidt, Hanns. See Müller-Skjold, F. Schmitt, Hans, aluminium as a [German] domestic material and as a substitute for other metals, B., 327.

and Bergmann, P., aluminium alloy containing MgZn, considered as a casting alloy, B., 1159.

Schmitt, I., and Kirchhof, H., [blood-]

bromine problem, A., 622. Schmitt, J. B. See Ginsburg, J. M. Schmitt, J. J. See Eastman Kodak Co. Schmitt, K. See Dietrich, K.

Schmitt, L., phosphate fertilisation and production, B., 246. Manuring with magnesium, B., 384. Modern manuring, crop quality, and health, B., 898.

Schmitz, II., standardisation of creep tost on steel, B., 374.

Schmitz, L. See Antropoff, A. von. Schmitz, W. H. See Kell, K.

Schmitz-Dumont, O., hydration of ions, A., 289, 935.

Schmölzer, A., technically important properties of soils and rocks; methods of examining rock, B., 805. Weather Weather sculpturing of building stones, B., 991.

Schmorl, K., ripening processes in bread cereals (wheat), B., 215.
Schmuk, A., Iljin, G., and Charin, A.,

application of electrolysis to elimination of lead from food-stuffs, B., 74.

Schmulovitz, M. J. See Wylie, H. B. Schmutz, F. C., theoretical analysis of the function of the pigment in house paint

primers, B., 650. Schnaase, H., alteration in the axial ratio and in the position of the rhombic section with temperature of anorthite from Vesuvius, A., 1449.

Schnabl, W., magnetic properties of nickel up to the Curie point, A., 1187.

Schnackig, A. See Hieber, W. Schnecko, O. See Schwalbe, W.

Schneerson, A. See Nekrassov, N. Schnegg, R. See Schmidt, Erich.

Schneider, Adolf, printing ink, (P.), B., 109. Schneider, Andreas, and Miller, A., tile composition, (P.), B., 103.

Schneider, E., and Kraft-Phenix Cheese Corp., treatment of [processed] cheese, (P.), B., 1176.

Schneider, E. (Berlin). See Massatsch, C. Schneider, Erich, physiology of pigments of purple bacteria. III. Carotenoids,

and Widmann, E., carotene and vitamin-A contents of human serum, A., 903. Blood-serum, -protein, and vitamin-C, A., 1304.

Schneider, Ernst. See Behaghel, O. Schneider, E. C., and Crampton, C. B., erythrocyte and hæmoglobin increase in human blood during and after exercise, A., 221.

Schneider, E. F. See Feldman, H. Schneider, E. G., optical properties of lithium fluoride in the extreme ultraviolet, A., 544.

See also Street, J. C.

Schneider, F. See Bergmann, M. Schneider, G. See Henglein, F. A.

Schneider, Gustav, pectic substances and their technical importance, B., 1175. and Folgner, R., stability of solid phar-

maceutical hydrogen peroxide preparations, B., 74. Bleaching and refining of candelilla and raphia waxes, B., 1004.

Schneider, H. A., selenium in [animal] nutrition, A., 515.

Schneider, H. F., jun., and McConnell, T. A., determination of viscosity of small samples of oil from oil-impregnated paper; method and apparatus, B., 227.

Schneider, J. E. See Reichel, J. Schneider, M. See Grosse-Brockhoff, F.,

and Mateeff, D. Schneider, O. See Emmert, B.

Schneider, P. See Pfeister, T. Schneider, R. P. See Dierker, A. H.

Schneider, S. See Alder, K.

Schneidewind, R., chromium-plating, (P.), B., 1163.

Schnelle, F., and Heiser, F., wheat varieties, area of cultivation, and quality,

Schnetka, M. See Brüning, A. Schnick, I. See Klemm, W.

Schnitker, M. T., Van Raalte, L. H., and Cutler, E. C., total thyroidectomy in man, A., 1015.

Schnitzer, J. See Breuer, G.

Schnitzer, R., avidity of solusalvarsan, A.,

Schnorf, A., apparatus for analysis of a chemically-purified water, (P.), B.,

Schnorrenberg, E. See Stackelberg, M. von.

Schober, II., chemical spectral analysis of technical illuminating tubes, especially those with rare gas-mercury filling, B.,

Schoch, E. P., treatment of polyhalite, (P.), B., 273.

Schoch, W., total metabolism trials with rats; influence of vitamin-D, A., 647. Schook, E. D. Sce Calvery, H. O., and Jensen, H.

Schockaert, J. A., and Lambillon, J., specificity of the substance inhibiting the hypertensive action of vasopressin

in serum of pregnancy, A., 1031. Schöberl, A., keratin; hydrolysis of disulphide compounds, A., 1232. Fission of disulphides by alkali. III. Fission of dithiodiacetic acid with alkali, A., 1232.

and Eck, *Hubert*, fission of disulphides by alkali. II. Hydrolytic fission of the disulphide linking, A., 707.

Schoedel, W., action of muscle-adenylic acid and related substances on bloodsupply of the skeletal muscle, A., 516. Influence of vaso-dilator substances on the output of work and the blood supply, during work, in the skeletal muscles, A., 1551.

See also Grosse-Brockhoff, F. Schoeld, E. A. See Livingston, R.

Schöller, R. See Wenusch, A. Schoeller, W., Dohrn, M., and Hohlweg, W., standardisation of follicular hormone and its derivatives, A., 902.

Schoeller, W. R., analytical notes on white earths and pigments, B., 559.

and Waterhouse, E. F., analytical chemistry of tantalum, niobium, and their mineral associates. XXXI. their mineral associates. Determination of tungsten in earthacid minerals, A., 1083.

and Webb, H. W., analytical chemistry of tantalum, niobium, and their mineral associates. XXX. Beryllium. XXXII. Phosphorus, vanadium, and a tannin precipitation series, A., 696,

Schoen, A., and Reconstruction Finance Corp., preparation of outlines of designs, (P.), B., 955.

Schön, K., carotenoids. III. Isomeride of lutein from furze (Ulex Europaeus), A., 1571.

and Mesquita, B., carotenoids. IV. Carotenoids of Genista tridentata, A., 1571. Schön, M. See Heyne, G., and Stark, J. Schoenauer, W. See Erlenmeyer, H.

Schönberg, A., rubrene problem, A., 326. Photochemical formation of organic diradicals. III. Anthracene, the fulgides, thiophosgene, and their derivatives, A., 437. [Reversible chemical absorption of free oxygen by organic

compounds], A., 600.
and Michaelis, R., quinonephosphines.
I. Benzoquinone - triphenylphosphine, A., 871. Autoxidation phenomena in the indono series, A., 1511. Interaction of tetraphenyl glycol and pyridinium chloride, A., 1520. Schönberger, E. M., "Wecker"

fatty acid distillation process, B., 892.

Schönberger, S., and Balint, P., spectrophotometric investigation of cyano-compounds of blood-pigments, A., 355. Schönbrunner, E. Sce Lasch, F.

Schöne, O., measurement of coal temperature in hoppers of brown-coal briquette presses, B., 864.

Schoeneck, H. Sec Cermak, P.

Schörner, E. See Felix, K.
Schoener, J. G. See Flocke, F. G.
Schönfeld, H., effect of administration of fat on blood-sugar, A., 235. Schönfelder, H., metabolism of tonic and

non-tonic muscle, A., 232. Schoenheimer, R., and Berliner, (Miss) F.,

preparation of lithocholic acid from cholesterol, A., 1249. and Evans, E. A., jun., allocholesterol

and epiallocholesterol, A., 1105.

and Rittenberg, D., deuterium as an indicator in intermediary metabolism. V. Desaturation of fatty acids in the organism. VI. Synthesis and the organism. VI. Synthesis and destruction of fatty acids in the organism, A., 630, 1018.
Rittenberg, D., Berg, B. N., and Rous-

selot, L., deuterium as an indicator in intermediary metabolism. VII. Bile acid formation, A., 1547.

See also Anchel, (Miss) M., Anderson, R. J., and Evans, E. A., jun.

Schönherr, K. See Röhrig, H.

Schönheyder, F., permeability of erythrocytes for malonamide, A., 221. Determination of vitamin-K. I., A., 907. See also Dam, H.

Schöning, W. See Sturm, A. Schönol, K. See Wessely, F.

Schönrock, O., and Einsporn, E., photoelectric half-shadow method for determination of rotational dispersion, A., 181. Schöntag, A. See Scheibe, G.

Schoep, A., symmetry of tetragonal nickel sulphate, A., 413. Crystals of pyrites in ironstone concretions in coal formations, A., 1089.

and Billiet, V., lattice of uraninite, A., 1226. Schöpf, C., and Becker, Erich, new pterins, A., 1260.

and Klapproth, II., explosion in preparation of guanidine nitrate fammonium thiocyanate, A., 194.

and Oechler, F., synthesis and reactions of natural substances under physiological conditions. VI. Biogenesis of vasicine (peganine); synthesis of deoxyvasicine under physiological conditions, A., 1002. See also Becker, Erich.

Schoepfle, C. S., and Trepp, S. G., reaction between triarylmethyl halides and mag-

nesium phenyl bromide. II., A., 834. Schoepfle, G. K., term values in the spectrum of lead v, A., 2. Deep terms in the spectra of Pb v and Bi vi, A., 1310.

See also Gibbs, R. C.

Schöpp, K. See Karrer, P. Schoetzow, R. E. Sce Overbye, D. A. Schofield, D., viscosities of aqueous solutions of nitric acid at low temperatures, A.,

Schofield, F. H., f.p. of palladium, A., 1190.

Schofield, R. K., interpenetration of diffuse double layers surrounding soil particles, B., 245.

See also Samuel, L. W.

Schofield, W. See Stone & Co., Ltd., J.

Schoichet. See under Shoikhet.
Schoierer, K. See Täufel, K.
Schoklitsch, K., micro-silicate analysis. II. Determination of iron, aluminium, magnesium, calcium, titanium, and manganese, A., 1222.

Schol-Engberts, L. S., and Migai, K. V., hazards in manufacture of synthetic rubber, B., 848.

Scholder, R. [with Weber, H., Christoph, W., and Dolge], anionic iron, A., 691.

Scholes, A., poisoning by sodium nitrite, A., 1554.

Scholes, S. R. See Morris, L. D.

Scholl, A. W., Hutchison, A. W., and Chandlee, G. C., activity coefficients of sulphuric acid in anhydrous ethyl alcohol from e.m.f. data, A., 290.

Scholl, E. E. See Sanborn, C. E.

Scholl, R., constitution of benzoylformoin, A., 1513.

Donat, J., and Hass, S., halochromism of 5-benzoyl-1:4-naphthaquinol, A.,

and Hass, S., 6:7-benzoylene- $\beta\beta'$ -benzofurans from 1:5-diaroylanthraquinones, A., 341.

Hornuff, G. von, and Meyer, H. K., synthesis of 1:2-phthaloylanthraquin

one-6-carboxylic acid, A., 728.
and Meyer, H. K., action of glycerol
and sulphuric acid on pyrene: history

of benzanthrone, A., 336. and Wallenstein, H. D., 1:1'-dianthra-quinonylglyoxal and the anthraflavone of the a-series, A., 606.

See also Soc. Chem. Ind. in Basle. Scholl, W. See Davis, R. O. E.

Schollenberger, C. J., antimony electrode for soil $p_{\rm H}$ determination, B., 421.

Scholler, H., sugar, alcohol, and fodder yeast from wood, B., 456. Saccharification of cellulose, (P.), B., 1227. Apparatus for carrying out saccharification of cellulose material, (P.), B.,

and Eickemeyer, R., production of yeast and fermentation of solutions, (P.), B., 809.

Scholten, R. See Gruber, C. M.

Scholtens, R. T., analysis of antigens of Vibrio choleræ, A., 1010.

Scholtz, F. See Bazlen, M.

Scholz, A., working-up of aged [used] oils, B., 356.

Scholz, E. See Eisenmann, K. Scholz, H. See Arndt, F., and Rehorst, K. Scholz, II. A., Haydon, O., and United States Gypsum Co., [water-]paint composition, (P.), B., 286.

Sec Kanitz, H. R., and Scholz, J. Straub, W.

Scholz, W., chlorosis of hortensia (Hydrangea hortensis) in relation to iron, B., 165. Chlorosis of Primula obconica in relation to iron, B., 293. Purification of Hohenbockaer sand for nutrientdeficiency experiments. II., B.,

and Eckardt Akt.-Ges., J. C., apparatus for measuring density of flowing liquids, (P.), B., 578.

Schonbrunner, E. See Lasch, F.

Schonebaum, C. W., and Klazinga, W. M., removal of colloids from beet juice during clarification, B., 710.

Schonland, B. F. J., Delatizky, B., and Gaskell, J. P., variation of cosmic ray intensity with sidereal time, A.,

Schoofs, J. See Koets, P. Schooley, J. P. See Riddle, O. Schoonover, I. C., colorimetric determination of the color with ation of small amounts of silver with p - dimethylaminobenzylidenerhodanine, A., 178.

Schoonover, J. W., plasma and crythrocyte glutathione in human cancer, A., 364. Blood-glutathione in human cancer, A., 364. Enzymes in cancer. II. Glycerophosphatases of human crythrocytes, A., 1153.

choop, E., treatment of fresh fruit, vegetable, and similar juices, (P.), Schoop,

B., 123.

Schoorl, P., relation between blood-lipin level and fat content of milk in cows, A., 222. Sodium metabolism; influence of sodium deficiency on blood-urea and -amino-acid in pigs, A., 632. Vitamin-E, A., 1568.

Schopfer, W. II., auxogenic action of normal and pathological tissues on the growth of *Phycomyces*, A., 523. Adsorption and elution of vitamin- B_1 , A., 904. Vitamins and growth factors in plants; solubility of growth factors; factor in urine, A., 1164. Nitrogenous metabolism of a micro-organism, A.,

and Jung, A., vitamin-A activity of the stem of a Mucor, A., 247. Growth factors and vitamins in plants; effect of extracts of Aspergillus on the development of Phycomyces, A., 523. Synthesis of vitamin- B_1 by Phycomyces, A., 523. Measurement of vitamin-B₁ activity by means of a microorganism (Phycomyces), A., 905. Content of vitamin- B_i in wheat-germ extracts, A., 1027.

Schopp, J. E., grease- and moisture-proof paper and similar materials, (P.), B., 1202.

Schoppe, R., interterence measurements with benzene derivatives, A., 975. R., interference measurements

and Wolf, K. L., "ortho-effect" in dihalogenobenzenes, A., 976.

Schopper, A., paper pulp testing device, (P.), B., 981.

Possanner von Ehrenthal, B., Unger, E., and Schopper, L., paper, (P.), B.,

Schopper, L. See Schopper, A.

Schopper, R., apparatus for testing porous materials, (P.), B., 961.

Schor, M. I., and Borin, A. V., influence of acid substrata on the photographic properties of emulsions, B., Schorigin, P. P., and Belov, V. N., attempted cyclisation of $N-\beta$ -hydroxyethylaniline, and its benzoyl derivatives, A., 716.

and Makarova-Semljanskaja, N. N., action of metallic sodium on cellulose,

A., 1096.

and Schorigina, N. V., influence of structure on polymerisation of substituted

styrenes, A., 62.

and Toptschiev, A. V., nitration of hydrocarbons by nitrogen peroxide in the gaseous phase, with and without action of ultra-violet light, A., 61. Nitration with nitrogen dioxide. Nitration of pyridine and quinoline, A., 1264.

Schorigina, N. V. See Schorigin, P. P. Schorstein, H. See Blanck, E. Schossberger, F. See Iguchi, M. Schostakovski, M. F. See Favorski, A. E. Schostakovski, M. S., preparation of the school of the s a-chloro-γ-bromopropane, and velocity of addition of hydrogen bromide to allyl chloride, A., 819.

Schott & Gen, simplified form of Schöbel heating mortar, A., 698.

Schotte, H. See Schering-Kahlbaum A.-G. Schottky, W., and Waibel, F., electronic conduction of cuprous oxide, A., 138.

See also Gudden, B., Hartmann, W., and

Leuder, H. Schou, S. A., injection therapy. VII. Decomposition of scopolamine solutions by heat-sterilisation. Decomposition of arecoline hydrobromide on heat sterilisation, 715, 812.

[with Abildgaard, J.], injection medicine. II. Decomposition of novocaine solutions on sterilisation and keeping, B.,

and Heim, E., injection medicine. I. Decomposition of cocaine solutions on sterilisation and keeping, B., 570.

See also Bennekou, I., and Bjergaard, K. P.

Schour, I., and Rogoff, J. M., effect of the adrenal glands on calcium metabolism, A., 762. Changes in the rat incisor following bilateral adrenalectomy, A., 1425

and Smith, M. C., histological changes in the enamel and dentine of the rat incisor in acute and chronic experi-

mental fluorosis, A., 1141.

Schouteden, F., and Deveux, J., vapour pressure of ethyl alcohol and toluene as a criterion of purity, A., 1059.

Schoutissen, H. A. J., influence of degree of acidity on velocity of the diazotisation reaction, A., 465.

See also Böeseken, J.

Schouwenburg, K. L. van, and Eymers, J. G., quantum relationship of the light-emitting process of luminous bacteria, A., 1422.

See also Eymers, J. G.

Schpak, M., and Schubaev, colorimetric determination of aluminium in waters, B., 222.

and Visceniakova, solubility of [cellulose]

xanthate, B., 829. Schpeizman, V. M. See Schultin, A. I. Schpigel, N. A., distribution of current density in electrolytic baths without deposition of metals, B., 645.

Schpitalnui, A., viscose research of the "Piatiletka" plant, B., 14.

Schpolski, E. V., photochemical reactions in solutions, A., 1214.

and Iljina, A. A., rôle of oxygen in photosensitisation in solutions. II., A., 1214.

and Kolesnikova, N. I., photochemical sensitisation in solutions. I. Sensitisation of an Eder solution with eosin, A., 809.

Schpunt, S. J. See Belopolski, A. P.

Schrader. See Herberg.

Schrader, A. See Hofmann, W.

Schrader, D., mineral matter content of German feeding-stuffs and effect of variety and origin: beet, turnips, and potatoes, B., 394.

Schrader, G. \hat{A} ., ability of vitamin-Bdeficient rats to utilise d-glucose, A.,

Schrader, H. See Gebhard, K., and Houdremont, E.

Schrader, H. (Essen), importance of emulsions as forms of distribution, B., 863.

Schrader, O. See Hock, H.

Schraiber, J. See Goldemberg, L. Schraivogel, K., spot-welds in aluminium alloys, B., 1160.

Schramm, C., electro-optic effect in zinc blende, A., 410. Schramm, E., and Hall, F. P., fluxing

effect of felspar in whiteware bodies, B., 790.

Schramm, G. See Butenandt, A.

Schramm, H. W. See De Coriolis, E. G. Schramm, J., system iron-zinc, A., 1332. Etching solution for zinc and zine alloys, B., 1043.

and Vaupel, O., X-ray investigations on the ternary system nickel-copper-

zinc, A., 1061. See also Heike, W.

Schramm, O., temperature-measuring appliance for hot fluid masses [of chocolate], (P.), B., 1233.

Schramm, W., nitrogen loss in drying pig fæces and its influence on determinations of digestibility coefficients in metabolism trials, B., 428.

See also Bünger, H. Schrauth, W., and Hydronaphthene Corp., purification of pyridines [prior to hydrogenation], (P.), B., 922.
Schrauth, W. See Du Pont de Nemours &

Co., E. I.

Schreber, K., [temperature of vapour from boiling solutions], A., 1454

Schreck, C., determination of dielectric constants and dipole loss at high frequencies. II. Dipole loss in liquids for long waves, A., 549. Dipole effect of viscous liquids at high frequencies, A., 1182. Measurement of low conductivities and dipole losses with long waves, A., 1321.

Schreder, K., minim-alcohol beverage [of low alcohol content], (P.), B., 390.

Schreiber, B., effect of anterior pituitary hormones on the male eel, A., 762.

Schreiber, E., sound- and heat-insulating covering sheets or slabs, particularly for

flooring, (P.), B., 1042.
Schreiber, E. P., coating [non-metallic articles] with chromium, (P.), B.,

Schreiber, N. E. See Sollmann, T. Schreiber, W., alinement charts for calculating the calorific values [of fuels], B., 864.

Schreiberg, L. See Doelger, W. P.

Schreinemakers, F. A. H., and De Vries, C. L., osmotic complexes in which one or more liquids proceed along a

closed curve during osmosis. I., A., 285. Lanzing, (Miss) J. C., and De Vries, C. L., influence of nature of membrane and temperature on osmotic system of water and oxalic acid, A., 285.

and Werre, J. P., osmotic complex with two stationary liquids, A., 285. Osmotic complexes in which the pressure can differ on the two sides of the membrane, A., 793.

Schrenk, H. H., Pearce, S. J., and Yant, W. P., benzene in natural gas, B., 178. Micro-colorimetric method for determination of benzene [vapour in air],

B., 221. and Yant, W. P., toxicity of dioxan, A., 1417.

See also Pearce, S. J., and Yant, W. P. Schrero, M. See McCombs, L. F. Schreuer, E. See Hiedemann, E.

Schreurs, J. J. See Fink, C. G.

Schreus, H. T., and Carrié, C., bile pigment metabolism. I. Breakdown of blood pigments to protoporphyrin by the liver and other organs, A., 501.

Schreyegg, H. See Täufel, K. Schriever, H., and Perschmann, G., mode of action of picrotoxin, A., 633. Schriever, W., space-charge in a con-

ducting electrolyte, A., 1206.

Schröder, C. G. Sce Treibs, A.

Schroeder, C. H., Redding, G. K., and Huber, L. J., causes and effects of a high free fatty acid content of the meat scraps in poultry rations, B., 1067.

Schröder, E. See Bock, G.
Schroeder, E. F. See Busch, K. G. A.
Schroeder, F. W. See Kraner, H. M.

Schroeder, H., secretion of ascorbic acid by the healthy and diseased organism,

A., 530. and Wittmann, V., vitamin content of different forms of diet, A., 645.

See also Diehl, F., and Stepp, W. Schroeder, J. H., change in resistance of bismuth single crystals at the m.p.,

Schroeder, R. See Kleber, W. Schröder, W. [with Neumann, E., and Altdorf, J.], relations of beryllium to the [zinc] group and the alkaline-earth metals. I., A., 1204. Schroeder, W. C., and Berk, A. A., action

of solutions of sodium silicate and sodium hydroxide at 250° on steel under stress, B., 598.

Berk, A. A., and Gabriel, A., solubility equilibria of sodium sulphate at temperatures from 150° to 350°. II. Effect of sodium hydroxide and sodium carbonate, A., 798.

Berk, A. A., and Partridge, E. P., uso of solubility data to control deposition of sodium sulphate or its complex salts in boiler waters, B., 863. Effect of solution composition on failure of boiler steel under static stress at 250°,

and Partridge, E. P., effect of solutions on endurance of low-carbon steel under repeated torsion at 250°, B., 500.

Schrödinger, E., phenomenological theory of superconductivity, A., 786.

Schröer, E., kinetics and mechanism of reaction of ferrous ion with nitrous and nitric acids, A., 568. "Activated form" of oxalic acid, A., 1361, 1488.

Schröter, K. See Gen. Electric Co. Schröff, G. See Meythaler, F.

Schropp, W., supply of iron to plants in water cultures, A., 532.

See also Scharrer, K.

Schroter, A. See Fischler, F.

Schroth, W. [with Konrad, W.], drying of

[coal] gas, B., 402. Schtakelberg, I. I., and Lifschitz, A. A.,

coagulation of sulphite-cellulose lyes by certain electrolytes, B., 311.

and Vechotko, T. I., determination of lignin in water contaminated with sulphite lyes, B., 925.

Schtandel. See under Standel.

Schteingart, G. M., extraction of zinc from condensation potsherds by means of sulphurie acid, B., 198. Effect of size and uniformity of grain of roasted concentrate on extraction of zinc by the distillation process, B., 198.

Schteingart, M. See Bonorino, U. C. Schter, R. S. See Shavoronkov, P. V. Schternin, E. B. See Skanavi-Grigorieva,

M. S.

Schtipelman, S. D. See Kogan, A. I. Schtraler, F. E., Mach, G. M., and Gachtel, F. G., hydrogenation of semi-coke tar from Alexandrijsk lignite, B., 306.

Schtseheglov, I. E., improved wood pulping by the Sudakov process, B., 185. Schtschepkin, G. See Fomin, V.

Schtschepkin, N. G. See Moltschanova, 0. P.

Schtscherhak, M. M. See Valiaschko, N. A. Schtscherbatschev, K. D., shade of methylene-blue, B., 12. β -Naphthol-1:6-disulphonic acid, B., 181.

Schtschigeliskaja, M. K. See Dohrjanski, A. F.

Schtsehigol, M., mercurometry; titration of halogens; action of ammonia on mercuric chlorides and their determination, A., 577, 952. ad Doubinski, N. M., qualitative

analysis of cations without use of

H₂S or (NH₄)₂S, A., 1479.

Schtschitkov, V. K. See Lotoschnikov, M. K. Schtschodro, N. K., and Maslov, N. M., dielectric constants of rocks and their dependence on moisture, A., 586.

Schtschukina, M. N., and Preohrashenski, N. A., condensation of a-aldehydo- $\alpha\beta$ dicarboxylic esters with esters of a-halogeno-substituted acids, A., 54.

See also Preohrashenski, N. A.

Schubaev. See Schpak, M. Schube, P. G., stability of sugar in cerebrospinal fluid, A., 361.

Schubert, A., tanning skin substances [white leather], (P.), B., 339.

See also Barrett & Co. Schubert, F., effect of recrystallisation on the omission of platinum, A., 1188.

Schubert, H. See Cruse, K.

Schuhert, M. P., combination of thiol acids with methyl- [and phenyl-]glyoxal, A., 55. Compounds of thiol-acids with aldehydes, A., 824.

See also Michaelis, L.

Schubert, R. See Stather, F. Schubert, Y. See Fisher, H. L. Schubin. See under Shubin.

Schuhnikov, L. V., destruction of superconductivity by electric current and magnetic field, A., 1329.

and Kikoin, A. K., optical experiments on liquid helium II., A., 1454.

See De Haas, W. J., Fomin, V., and Rudenko, N. S.

Schuchardt, W., specificity of phosphatases, A., 521. Yeast phosphatases, A., 1025.

See also Neuherg, C.

Schuchovitski, A. A., solution of variation problems in quantum mechanics, A., 13, 1448. New formulation of the Pauli principle for bond problems, A., 141. Quantum theory of catalysis, A., 941.

Schüler, H., deviation of electrical charge distribution from spherical symmetry for somo atomic nuclei, A., 134.

and Korsching, H., relation between hyperfine structure and atomic nuclei, A., 1316.

and Marketu, M., quadrupole moment and magnetic moment of 75A., A., 1442.

and Schmidt, T., asymmetry of the electric charge distribution in the 80 Hg201 nucleus, A., 262. Electric quadrupole moments of some atoms and the magnetic moment of the proton, A., 266. Magnetic moment of §Li, A., 653. Electrical quadrupole moment and magnetic moment of 63Cu and 65Cu, A., 769. Electrical quadrupole moment of the ²⁰⁹₃₈Bi nucleus, A., 769.

Schüler, W., standard bitter hops, B., 342. Schürch, O., and Winterstein, A., tobacco and cancer, A., 883.

Schuette, H. A., and Lunde, C. M., [American] elm-seed oil, B., 749.

and Oppen, F. C., determination of organic nitrogen, A., 619.

See also Chang, C. Y.

Schütz, W., [intensity distribution of neon lines], A., 261. Crystallochemical relations between germanium and silicon, A., 415.

Sehütza, H. See Jellinek, K. Schütza, M., apparatus for determining concentration of ammonium fluoride solutions, A., 182.

Schütze, W. See Barwich, H.

Schuftan, P., determination of dry substance content, especially of solutions of materials difficult to dry, B., 527.

See also Pollitzer, F.
Schuhmann, R., jun. See Gaudin, A. M.
Schujkin, N. I., Balandin, A. A., and
Dimov, F. T., comparative action of mixed catalysts when used for joint dehydration of ethyl alcohol and aniline. II., A., 169.

Balandin, A. A., and Plotkin, Z. I., comparative action of mixed catalysts when used for the joint dehydration of ethyl alcohol and ammonia. I.,

Bitkova, A. N., and Ermilina, A. F., alkylation of aniline in presence of mixed catalysts. III. Mono-methyland ethyl-aniline, A., 1103.

and Tschilikina, E. M., catalytic hydrogenation of furan; tetrahydrofuran, Ā., 996.

See also Zelinski, N. D.

Schujkina, Z. I. See Demjanov, N. J. Schukarev, S. A., and Chacham, I. B., distribution of hydrogen sulphide between benzene and water, A., 153.

and Vdovenko, V. M., mechanism of the movement of ions of chlorine and hydrogen in the presence of gelatin, A., 1068.

Schukareva, L. A. See Budnikov, P. P. Schukevitsch-Erschova, E. T. See Porai-Koschitz, A. E.

Schulek, E., and Wolstadt, R., titrimetric determination of camphor (and hexetone) in pharmaceutical mixtures, B., 475.

Schuler, K. See Barth, K.

Schuler, L., manufacture of sulphur-black in China, B., 537.

Schuler, M., and Dimpker, A., strength of crystals towards pressure, A., 145.

Schuler, R., and Stanco, Inc., refining of alkylphenols [aryl alkyl ethers], (P.), B., 1196.

See also Brooks, B. T.
Schuler, W., and Reindel, W., uric acid synthesis in birds. IV. Uric acid synthesis in pigeons; a purine synthesis, A., 1410.

Schulerud, A., indicator dyestuff in bran and its occurrence in grain as a varietal characteristic, B., 1123.

Schulhof, K., changes in hydration of scrum-colloids as a general feature of a disease, A., 99.

Schulman, J. H., surface phenomena; films, A., 1458.Schulte, M. J., analysis of hexamethylene-

tetramine anhydromethylenecitrate, B., 1068.

Schulte, W. C. See Doan, G. E. Schulten, H. See Hieber, W.

Schultes, H., and Gohr, H., chemical action of supersonic waves, B., 844.

Schultes, Hermann, pyrogallol compounds of wood tar, A., 1246.

and Deuts. Gold- & Silber-Scheideanstalt vorm. Roessler, photographic developer, (P.), B., 1132.

Schultes, W., solid fucls in gas generators for motor vehicles, B., 401. Production of water-gas and "synthesis" gas from bituminous coal, B., 726.

Schultin, A. I., and Schpeizman, V. M., resistance of alloys to pit water, B., 414.

Schultz, A., Freilich, J., Frey, C. N., and Inc., Standard Brands, chemical leavening agent, (P.), B., 122. See also Frey, C. N.

Schultz, C. C., and Johns-Manville Corp., diatomaceous product, (P.), B.,

Schultz, H. L. See Hector, L. G.

Schultz, J. See Bünger, H. Schultz, K., and Gibb-Lewis Co., [corrosionproofing] treatment for building mater-

ials, (P.), B., 992. Schultze, G., formulation and application of chlorinated-rubber [paints], B., 29. Chlorinated rubber as a protective coat-

ing for aluminium, B., 1160. Schultze, G. R., bleaching effect of active

earths on mineral oils, B., 227. Thermodynamic equilibria of hydrocarbon reactions applied to the cracking process, B., 535. Thermodynamic equilibria of hydrocarbon reactions applied destructive hydrogenation, B., 535. Thermodynamic equilibria of hydrocarbons applied to the cracking process, B., 535. Theory of industrial cracking and hydrogenation processes, B., 1138.

Schultze, K., efflorescence of salts, B., 850. Schultze, M. O., Elvehjem, C. A., and Hart, E. B., availability of copper from various sources as a supplement to iron in hæmoglobin formation, A., 1399.

Elvehjem, C. A., Hart, E. B., and Halpin, J. C., hæmoglobin content of blood of laying hens on practical poultry rations, A., 1409.

Schultzer, P., biological assay of the adrenal cortical hormone by the survival of young [adrenalectomised] rats, A., 1158.

and Griis, O., capillary resistance. IV. Effect of vitamin-C therapy on lowered capillary resistance in patients with

gastric achylia, A., 1161.
Schulvas-Sorokina, R. D., and Posnova,
M. V., structure of anisotropic liquids,

A., 550.

Schulz, A. S. See May, F. Schulz, E. H. See Offerman, E. K., and Ristow, A.

Schulz, E. R., and Verein Stahlwerke Akt.-Ges., production of chromium steel alloys by the basic process, (P.), B., 842.

Schulz, G. See Krüger, F. Schulz, G. V., highly polymerised compounds. CXXII. Relation between reaction velocity and composition of product of reaction in macropolymer-CXXXIV. Disisation processes. tribution of mol. wts. in highly-polymerised mixtures and determination of mean mol. wt. CXLI. Osmotic mol. wt. determinations with polymerhomologous series of substances of high mol. wt., A., 295, 678, 1056. Osmotic mol. wt. determination for large molecules, A., 1329. Swelling pressure and van der Waals force, A.,

See also Staudinger, H.

Schulz, Hans. See Menzel, H.

Schulz, Herbert, centrifuge, (P.), B., 3. Schulz, H. R., significance of viscosity, A.,

788. Schulz, $K_{\cdot \cdot}$, mass absorption coefficients of monochromatic X-rays for selenium, silver, cadmium, tellurium, gold, lead, and bismuth up to about 2 A, A., 1170.

Schulz, K. G., and Kunisch, G., influence of degree of ripeness on the resting period of brewing barleys, B., 900.

Schulz, Leo. See Schmidt, Harry. Schulz, Lotte. See Hammer, G. Schulz, P. See Füchtbauer, C. Schulz, W. See Meyerhoi, O.

Schulze, A., phenomenon in transformations [in metals and alloys] extending over a temperature range, A., 275. Investigations of semi-conductors, A., 1050, 1181. Allotropy of very pure calcium, A., 1056. Calcium,

B., 995.

See also Steinwehr, H. von.

Schulze, E., changes in carbohydrate metabolism due to carbon monoxido poisoning, A., 635.

Schulze, F. See Du Pont de Nemours & Co., E. I.

Schulze, G. E. R., crystal structure of radium fluoride, A., 783.

Schulze, H., differentiation of sterols from other polyterpene alcohols; structure of lanosterol and onocerol, A., 340.

Schulze, J. E., and Red River Refining Co., lubricating oil, (P.), B., 918. Mineral oil distillation, (P.), B., 1079. Schulze, J. F. W. See Grasselli Chem. Co.

Schulze, W. A., Chaney, L. V., and Phillips Petroleum Co., treatment of hydrocarbon oils, (P.), B., 777. Sweetening of hydrocarbon oils, (P.), B., 821.

and Phillips Petroleum Co., desulphurisation of mercaptan-bearing petroleum oil, (P.), B., 358.

See also Buell, A. E., and Chaney, L. V.

Schumacher, E. A., Hamister, V. C., Heise, G. W., and Nat. Carbon Co., gas[-permeable carbon] electrode [for primary cells], (P.), B., 605. See also Heise, G. W.

Schumacher, E. E. See Scaff, J. H.

Schumacher, H.J., oxidation reactions under the influence of light, A., 1215. Light reactions of halogens with organic compounds of the aliphatic series, A., 1228. See also Brenschede, W., and Pohlman, R.

Schumacher, J., and Carus Chem. Co., hydroquinone [quinol] manufacture, (P.), B., 825.

Schumacher, W. See Hackspill, L. Schumann, G., viscometric investigations of structure formation in V₂O₅ sols. III. Action of anions, A., 157. "Optimum" concentration of active foreign substances in crystal phosphors, A., 270.

Schumann, P. See Mannich, C. Schumann, W. O., superposition of field distribution and conductivity, A., 271. Schumb, W. C., and Anderson, Herbert H., silicon fluorobromides, A., 946.

and Bickford, F. A., dissociation of carbon dioxide in the electrodeless discharge, A., 943.

See also Marvin, G. C.

Schur, J. S. See Janus, R. I. Schur, M. F., and Mozheiko, V. I., melting white enamels, B., 408.

Schur, M. O., and Brown Co., strengthened absorptive paper, (P.), B., 588. Hoos, B. G., and Brown Co., finishing

of artificial leather, (P.), B., 1010.

See also Richter, G. A. Schuricht, A. G., and Western Cartridge Co., bullets, (P.), B., 77.

Schurz, E., spinning of copper-silk in chemically dried air, B., 364.

Schuster, Fritz, subduing the lustre of silk and artificial silk articles, (P.), B., 984.

Schuster, Fritz (Berlin), chemistry and physics of coking of mineral coal, B., 724. Detoxification of town's gas, B., 725, 818. Heat economy in [town's] gas detoxification, B., 965.

Schuster, P. See Lohmann, K., and Meyerhof, O.

Schuster, S., interaction of hydrogen sulphite derivatives of aromatic aldehydes with potassium cyanide, A., 470. Schuster, W., gas-tight scal for rotating

and tippable apparatus, (P.), B., 304. Schusterovich, G. M. See Maiofis, L. S. Schustina, V. I. See Ivanov, K. I.

Schut, W., colorimetric determination of lecithinphosphorie acid in egg-containing confectionery and advocaat, B., 953.

Schutt, H. C. See Chave, C. T.
Schutte, D. J. See Murray, G. N., and
Roux, L. L.
Schvedova, T. V. See Yaitschnikov, I. S.

Schvemberger, V. I., Dolin, P. I., Solotarev, S. S., Ochapkina, N. F., and Nikolaeva, L. I., fractionation of petroleum gases, cracked at high temperatures, with activated carbon, B., 818.

Schwab, E. H. See Decherd, G. M., jun.Schwab, G., rôle of asparagine and glutamine in the higher plants, A., 121.

Schwab, Gustav, and Nolte, A. C., melting

furnace, (P.), B., 128. Schwab, G. M., and Naicker, K., water-gas reaction at a platinum surface at low pressure, A., 1347.

and Zorn, H., kinetics of hydrogenation of ethylene on skeletal contact catalysts, A., 806.

Schwab, L., treatment of cereals and grain, (P.), B., 1067.

Schwab, M. O., incinerating means [for air, etc.], (P.), B., 670.

Schwabe, K., glass electrode for measurement of pH of unbuffered solutions in simple compensation circuit, A., 582. Schwabl, W. See Brezina, E.

Schwachheim, O., rapidly and slowly cooled clinker, B., 836.
Schwaibold, J. See Fischler, F.
Schwalbe, C. G., removal of bark and resins

from wood, B., 1085.

and Ender, W., chemical composition of German spruce, pine, and beech, B., 783.

and Just, G., determination of fat in the ether extract of conifers, B., 62.

Schwalbe, W., Schnecko, O., and Visking Corp., seamless cellulose tubes, (P.), B.,

Schwalen, H. C., effect of soil texture on the physical characteristics of adobe bricks, B., 837.

Schwaneberg, H. See Strack, E.

Schwanhausser, E., [water-insensitive] writing-pencil leads, (P.), B., 943.

physicochemical hwarte, L. H., physicochemical properties of hog cholera virus. I. Schwarte, Filterability as affected by $p_{\rm H}$. II. Migration when subjected to electrophoresis. III. Attenuation of virus and production of immunity to hog cholera,

Schwartz, A., and Riegert, A., determination of glyoxalines in serum, A., 356. Quantitative isolation of histamine and tyramine from plasma and serum, A.,

Schwartz, C., jun., leaf oils of Washington conifers; Tsuga martensiana; Abies grandis; (Abies lasiocarpa), B., 571, 620, 762.

Schwartz, C. M. See Beevers, C. A.

Schwartz, E., and Coblans, H., heats of solution and dilution of salts from extreme dilution to saturation. V. Barium chloride, A., 1205. See also Knorr, C. A.

Schwartz, E. D. See Wirtschafter, Z. T. Schwartz, F. W., and Wagner, F. E., chemical changes occurring in roasting of coffee, B., 169.

Schwartz, G. L. See Du Pont de Nemours & Co., E. I.

Schwartz, I., detection of diethyl phthalate in whiskies and other alcoholic products, B., 1228.

Schwartz, J., variations of p_H in culture media designed for production of staphylococcal toxin, A., 248. Action of poppy-seed oil, with and without added cholesterol, on staphylococcus toxin, A., 1156.

Schwartz, L., skin hazards in American industry, B., 525. Dermatitis from synthetic resins and waxes, B., 765.

Schwartzbach, S. S. See Uhlenhuth, E. Schwartzwalder, K., and Herold, P. G., effect of solid-liquid ratio on grinding a ceramic non-plastic, B., 21.

Schwarz, A. See Dain, B.

Schwarz, C., specific heat of gases as an aid in calculating equilibria, A., 798. and Ulich, H., specific heat, entropy, and heat of formation of iron carbide,

Fe₃C, A., 1465. Schwarz, E. R., and Hotte, G. H., microdetermination of cotton-fibre maturity

in polarised light, B., 490.

Schwarz, G., and Fischer, O., composition of the envelopes of milk-fat globules. A., 1405.

Fischer, O., and Stotz, H., determination of metals in milk products, B., 567.

Schwarz, Georges, fine-grain developers, B., 396.

Schwarz, II., absorption ratio within the L-shell, A., 262.

Sohwarz, K., and Stockert, R., diffusion constant and valency of silver in liquid silver amalgam, A., 1332. Sec also Lichtenfeld. A.

Schwarz, M. Sce under Zschimmer & Schwarz Chem. Fabr. Dölaw.

Schwarz, M. von, bearing properties of aluminium alloy bearing metals (quarzal), B., 1160.

and Mantel, W., destruction of metals

by water impact, B., 1098. Schwarz, M. A. See Bernardi, A.

Schwarz, P. A., low-temperature carbonisation, B., 1186.

Schwarz, P. A. (Ukraine), and Kuzmin, S. F., potato genetics. I. Protein content of species and hybrids, B., 521.

Schwarz, R., and Elstner, G., existence of perchromic acid, H₃CrO₈,2H₂O, A.,

Helnrich, F., and Hollstein, E., germanium. XVII. Electrochemical behaviour of germanium, A., 1466.

and Schmeisser, M., germanium. XVI. Germanium phenyl, A., 618.

and Trageser, G., synthesis of pyrophyllite, A., 49. Composition of clay substance, A., 817. Schwarz, W. See under Zschimmer &

Schwarz Chem. Fabr. Dölaw.

Schwarzberg, G. W., influence of lactic acid on determination of blood-ketones, A., 1284.

Schwarzenbach, G., dissociation constants of alkylamines, A., 564. Calculation of intramolecular atomio distances from dissociation constants of dibasio acids. V. Dissociation constants of hydrazine, A., 564. Effect of ionic charge on acidity of an acid, A., 680. Constitution of phosphorous, hypophosphorous, and sulphurous acids, A., 1448.

and Epprecht, A., calculation of intramolecular atomic distances from dissociation constants of dibasic acids. IV. Acidity of aliphatic dithiols, A., 564. Influence of a substituent on the acidity of an organic acid. II., A., 680.

Epprecht, A., and Erlenmeyer, H., dissociation constants of different oxides in deuterium oxide, A., 1463.

See also Karrer, P. Schwarzschild, A. M., printing of fabric [on one face only], (P.), B., 737.

Schweder, W., iron oxide from waterworks for dry purification of gas, B., 725.

Schwedler, H. See Hein, F. Schwedler, U., furnace for melting alumin-

ium and its alloys, B., 794.

Schwegler, A., secondary effect of cosmic rays, A., 265.

Schweikert, G., theory of detonation, B., 1182.

Schweinhagen, R. See Hilpert, R. S. Schweitzer, A., electrochemical investigations on rust-protective paints on iron, B., 1005.

Schweitzer, Arthur, silver manganite (simanite) in wound treatment, A., 1142. Schweitzer, H., and Lagneur, E., reduction of benzophenone at the dropping mer-

cury cathode, A., 1510. Schweitzer, T. R. See Hoffman, C.

Schweitzer, W. J., apparatus for making [agoing] alcoholic beverages, (P.), B., 1014.

Schweitzer, W. K. See Grasselli Chem. Co. Schwen, G., and Kuckertz, H., dispersing and regenerating agents for lime soaps, B., 941.

Schweyer, H. E., Coombs, C. E., and Traxler, R. N., susceptibility of asphalts to temperature change, B.,

See also Traxler, R. N.

Schwiedessen, H., mathematical and graphical representation of gas radiation of

heat], B., 1135.

Schwier, W., electric steel, (P.), B., 601.

Schwiete, H. E., and Pranschke, A., determination of heats of solution [of silicates] in acids of various concentration, A., 1070.

Sce also Gronow, H. E. von.

Schwindt, H. See Rohde, L. Schwingel, C. H. See Williams, John Warren.

Schwinger, J. See Halpern, O. Schwinning, W., strength of [metallic]

materials at low temporatures, B., 373. Schwob, (Mme.) A. See Dobry, (Mme.) A. Schwob, C., catalytic properties of charcoal.

I. "Peroxidase" activity, A., 1076. Schwoegler, E. J., Babler, B. J., and Hurd, L. C., copper selenite as a catalyst in the Kjeldahl nitrogen determination, A., 694.

Sciclounoff, F., and Mach, R. S., distribution of chlorine in tissues of the rabbit, after intravenous injection of sodium chloride, A., 225.

Sclar, M., and Riesch, L. C., kinetic salt effect in fourth-order reaction BrO3'+ $Br' + 2H^+ \rightarrow A., 684.$

Scofield, F., rocker value and drying time of soft films, B., 1055. Physical properties of oil films. I. Drying time and hardness of some oils and oil mixtures, B., 1107.

Scohy. See Gilard, P. Sconce, J. S., and Hooker Electrochem. Co., pulp-treating process, (P.), B., 1147. Scorah, L. V. D., adhesive, (P.), B., 1010. Scott, A. D. Sco Hughes, E. D.

Scott, A. F., and Bridger, G. L., apparent volumes and apparent compressibilities of solutes in solution. III. Unsaturated and supersaturated solutions of calcium nitrate, A., 788.

Scott, A. H., standard iodine solutions, A., 577.

and Berg, B. N., blood-lactic acid following administration of insulin in cats without the adrenal medulia, A., 1302. Scott, A. T., and Sharples Specialty Co.,

refining of pineapple juice, (P.), B., 619. Scott, A. W., manufacture and storage of condensed milk, B., 952.

Scott, Alfred W., and Adams, E. G., organic reagent for cadmium, A., 179.
Scott, C. M. See Khayyal, M. A.
Scott, Daniel A. See McBain, J. W.

Scott, David A., and Fisher, A. M., effect of zine salts on action of insulin, A., 644. Insulin with protamine, A.,

See also Charles, A. F., and Fisher, A. M. Scott, F. H. See Hemingway, A. Scott, F. W., analysis of chrome-nickel steels, using perchloric acid, B. 644. Scott, G. H., and Williams, P. S., spectrographic analysis of biological materials, A., 535.

Scott, G. L. See Gen. Chem. Co.

Scott, G. N., A.P.I. pipe-coating tests progress report No. IV; third inspection of pipe-coating tests on operating lines and second inspection of short-coated specimens, B., 644.

Scott, H., metals scaling into glass, B., 151. Sco also Westinghouse Electric &

Manufg. Co. Scott, H. M. See Hughes, J. S.

Scott, J. A., jun. See Kirby, W. W. Scott, J. R., incompletely solved rubber problems, B., 31. Surface deterioration of ebonite. III. Examination of some samples after prolonged exposure to air and light, B., 338. Oil-resisting rubber. VI. Solvents for cold-vulcanisation. VII. Swelling of vulcanised rubber in various liquids, B., 608, 1168.

See also Messenger, T. H. Scott, K. G. See Cook, S. F.

Scott, M., and West, E. S., determination of glucose, galactose, and lactose in a mixture of the three sugars, A., 1490.

Scott, M. R., and Bausch & Lomb Optical Co., optical glass composition, (P.), B., 835.

Scott, N. D. See Du Pont de Nemours & Co., E. I.

Scott, P. D., hydrogenation of crossote oil,

Scott, R. B. See Brickwedde, F. G., and Silsbee, F. B.

Scott, F. F. McN. See Blumberg, H. Scott, V. B., and Still, E. U., existence of prosecretin, A., 251.

Scott, W., and Rubber Service Labs. Co., vulcanisation of rubber, (P.), B., 1221.

Scott, W. A., grinding apparatus for pulverising materials, (P.), B., 129.

Scott, W. B., Bovier, L. S., Matthews, E. D., and Hooker Electrochem. Co., olefine derivatives [ethyl alcohol], (P.), B.,

Scott, W. J., growth of micro-organisms on ox muscle. I. Influence of water content of substrate on rate of growth at -1°, B., 1126.

Scott, Walter J. See Western Electric Co. Scott, William J. See Brit. Thomson-Houston Co.

Scott, W. W., Bissiri, A. A., and Gregory, W. C., electrolytic deposition of chromium and preparation of solutions therefor, (P.), B., 1050.

Scottish Agricultural Industries, Ltd. Sec Hutchison, T., and Laidlaw, J. D.

Scovill Manufacturing Co. See Price, W. B. Scowen, E. F. See Spence, A. W.

Scoz, G., variations in phosphatase activity of bone, kidney, and blood in experimental rickets, A., 759.

and Cantoni, G., effect of thyroxine on phosphatasic power of liver in the guinea-pig, A., 763.

and De Caro, L., effect of thyroxine on catheptic and amylolytic activities of liver in the guinea-pig, A., 763.

and Gualtierotti, T., effect of thyroxine on extractable sulphur and vitamin-C content of liver of the guinea-pig, A., 763.

and Marangoni, P. L., variations in ossification in relation to normal and experimentally-modified rates of growth, A., 753.

Scoz, G., and Micheli, P. L., action of thyroxine on body-weight and weight and nitrogen content of internal organs

of the rat, A., 763. Micheli, P. L., and Gualtierotti, T. effect of thyroxine on protein-sulphur of liver in the guinea-pig, A., 763. See also Baer, P., Boeri, E., and Quag-

liariello, G.

Scriver, W. de M. See Berglund, H. Scrutchfield, P. H. Sce Suter, C. M. Scuderi, C. S. See Jirka, F. J.

Scudi, J. V., and Lindwall, H. G., condensation of phenylglyoxylanilide with acctone, ethyl phenylacetate, and ethyl malonate, A., 202. See also Niederl, J. B.

Scupin, L. See Heiling, A.

Scurti, F., and Pavarino, G. L., bio-chemical changes in bananas at low temperatures, B., 427.

Seaber, W. M., testing for sea-water damage, B., 254.

Seahorg, G. See Livingood, J. J. Seal, S. C. See Linton, R. W.

Sealock, R. R. See Du Vigneaud, V. Sealtest System Laboratories, Inc. See Hammer, B. W.

Sealth Corporation. See Andrews, P. R. Seaman, W. See Standard Oil Development Co.

Seaman Paper Co., heat- or sound-insulating sheet material, (P.), B., 935.

Searle, D. S. See Coombs, H. C.

Searle, G. O., past and future of flax production in Great Britain, B., 1034. See also Linen Ind. Res. Assoc.

Searle, H. E., and LaQue, F. L., corrosion-

testing methods, B., 412. Searles, (Miss) J. See McBain, J. W. Sears, J. B. See Fine, J.

Sears, O. H. See Pieper, J. J.

Sears, R. E. See Rose, C. C.
Seavey, F. R., Kerone, E. B. W., and
Western Cartridge Co., handling of sensitive materials [e.g., primers containing lead azide], (P.), B., 699. See also Olsen, F.

Sebastian, A. See Moreno Martin, F. Sebastian, J. J. S., catalytic reduction of carbon monoxide to methane at atmospheric pressure, B., 531.

Sebrell, L. B., and Wingfoot Corp., aldol condensation product and vulcanisation of caoutchouc therewith, (P.), B., 290. Accelerator of vulcanisation, (P.), B., 1221.

Sebrell, W. H. See Badger, L. F.

Secareanu, S., and Lupas, I., products of the transformation of 2:4:6-trinitroand 2:4-dinitro-benzylideneaniline under the action of sodium carbonate in alcoholic solution, A., 986.

and Silberg, A., action of aniline on o-nitrobenzaldehyde in acetic acid,

A., 1509.

Secchi, I., resistance to filtration of compressible materials. I., B., 1183.

See also Bozza, G. Secher, K., and Vesterdal-Jörgensen, J., heart size during and after feeding thyreoidin, A., 1303.

Seck, W., treatment of native starches with oxidising agents, (P.), B., 389. [with Skrilecz, G.], mesomorphic state of soaps and washing materials, A.,

563. Secker, J., alleged occurrence of acetylcholine and adrenaline in cat's saliva, A., 880.

Seddon, R. V. See Travers, M. W. Sedwick, H. J. See Day, C. D. M.

Seebach, A. See Karrer, P.

Seebach, F., and Bakelite Ges.m.b.H., preparation of solid or liquid solutions containing hardenable phenol-aldehyde resins and air-drying fatty oils, (P.), B., 69. Preparation of airdrying varnishes from phenol-aldehyde condensation products, (P.), B., 463. Preparation of resinous condensation products from xylenol ethers and aldehydes, (P.), B., 1007.

See also Elbel, \vec{E} .

Seeger, H. See Ellinger, P. Seegers, W. H., and Mattill, H. A., nutritive value of alcohol-extracted animal tissues, and supplements required for growth and lactation, A., 368. Nutritive value of animal tissues in growth, reproduction, and lactation. III. Value of beef heart, kidney, round, and liver after heating and after alcohol extraction, B., 345.

Seel, P. C. See Eastman Kodak Co. Seelich, F., union with complement as a surface reaction. I. Surface tension and adsorption; model experiments with caffeine solutions. II. Changes of surface activity of serum after heat-inactivation of complement function. III. Cause of the dependence of the amount of protein for union on the degree of sensitisation of antigen cells, A., 1335, 1532.

Seeliger, B. See Spengler, O.

Seeliger, R., and Sommermeyer, K., "tube" discharges, A., 538. See also Mierdel, G.

Seely, S., diamagnetism of some organic binary mixtures at different temperatures, A., 931.

Seemann, C. von. See Fischer, Hans. Seemann, H., X-ray interference for contact of the source of rays and the crystal, A., 142. Production of clear crystal diagrams in Quenstedt linear projection by means of γ -ray interference, A., 782. Bimetal high-vacuum manometer, A., 956. Structural change and distortion of the ordered distribution of atoms in metallic mixed phases by plastic de-

formation, A., $14\overline{5}5$. Seemann, J. See Riedel-E. de Haen A.-G., J. D.

Seemann, W. See Remy, H. Seevers, M. H., oxygen and carbon dioxide tensions in the subcutaneous tissues of

normal subjects, A., 1403. Seferovitsch, J. E. See Portnov, M. A. Seffert, H. See Siebert, W. W.

Šefrának, B. See Frejka, J.

Segal, B., hydrogen sulphide as a mining hazard, B., 1069.

and Suzman, M. M., effect of humidity on toxicity of hydrogen sulphide gas, B., 1069.

Segeberg, H., technology of peat utilisation, B., 50.

See also Arnd, T.

Segovia, F. See Lora y Tamayo, M. Segrè, E., artificially radioactive materials, A., 659.

and Zahn, C. T., resonance energy of cadmium for neutron capture, A., 1314.

See also Amaldi, E., D'Agostino, O., Mitchell, D. P., and Rasetti, F. Séguin, H. See Meerssemann, F. Seguin, L. See François, M. Seguy, J. D. See Universal Oil Products Co.

Sehring, J., welded components in construction of chemical apparatus, B., 1044.

Sehrt, E., blood colouring matter of cancerous subjects, A., 626.

Seibert, F. B., composition of the active principle of tuberculin. XIX. Differences in antigenic properties of various tuberculin fractions; adsorption on aluminium hydroxide and charcoal, A., 1403. Sco also Long, E. R.

Seide, O. A., and Titov, A. T., structure of 2-amino- and 2:6-diamino-pyridine; hydrolysis of the amino-group in 2aminopyridine; 2:6-diamino- and 2amino-6-hydroxy-pyridine and 7-amino-2-hydroxy-4-methyl-1:8-naphthyridine, A., 1264.

Seidel, A. See Filippov, A., and Larionov,

Seidel, C. F. See Ruzicka, L. Seidel, F., Thier, W., W., W., W., W., W., W., W. Dittmer, J., determination of keto-enolic mixtures, A., 706. Seidell, A. See Smith, M. I.

Seidl, F., normal conductivity and reversion cffects of solid paraffin subject to γ-rays, A., 779. Crystal photo-effect for coloured Rochelle salt, A., 779. Electric conductivity of Rochelle salt single crystals under mechanical stress, A., 1189. and Huber, E., action of X- and γ -rays

on piezo-electric crystals, A., 145. Seifen, N. See Hiedemann, E.

Seifert, H. S. See Nathanson, J. B.

Seifert, W., heating, cooling, and condensing in chemical works, B., 223.

Seifriz, W., Spierer lens and colloidal structure, A., 286. Structure of proto-plasm, A., 359. Breakdown of fruit and vegetable tissue due to an electric current, A., 1431.

and Hock, C. W., structure of paper-pulp fibres, B., 735.

and Zetzmann, M., slime-mould pigment as indicator of acidity, A., 247.

Seigle, J., dilatometric and magnetic peculiarities of quenched eutectoid steels, especially if quenched in molten tin at 300-325°, B., 888.
Seigle, L. W. See Anderson, Ernest.

Seigle, W. R., and Johns-Manville Corp.,

friction facing material, (P.), B., 579. Seigneurin, R. See Lisbonne, M. Seikel, M. K. See Hahn, D. A. Seiki, Y. See Fujiwara, Takeo.

Seil, G. E., petrography and heat treatment of chromite refractories, B., 408.

and Lavino & Co., E. J., abrasive, (P.), B., 1095.

See also Triggs, W. W.

Seiler, K., atomic dispersion and absorption of X-rays according to the relativistic wave mechanics of Dirac. I., A., 1438.

Seipel, G. See Reihlen, H.

Seith, W., rate of diffusion in metallic crystals and atomic structure, A., 152. Ionic conductivity in solid salts, A., 1181.

and Keil, A., relation between diffusion and structure in solid alloys, A., 151. Quantitative spectral analysis of traces [of metallic impurities], A., 952.

and Peretti, E. A., diffusion in solid metals and its relation to other properties, A., 1062.

Seitz, (Frl.) A. See Küntzel, A.

Seitz, F., structure of the infra-red absorption of crystals, A., 545. Reduction of space-groups, A., 1325.

Seitz, W., protection of brass screws and soldered parts of accumulators from

oxidation, B., 202.

and Fucks, W., increase of sparking potential by irradiation with ultraviolet light, A., 770. See also Fucks, W.

Seitz-Werke G.m.b.H., and Adams, Robert, sifting, straining, or filtering apparatus, (P.), B., 3. Seka, R. See Kohlrausch, K. W. F., and

Pongratz, A.

Seker, K. C. See Hastings, J. D., and Rhodes, E.

Sekera, V. C., mechanism and application of the Fries isomerisation, A., 55.

Seki, K., clay diaphragm, B., 497.

Sekiguchi, H., non-corrodible steels for soya-bean sauce, B., 251.

Sekino, M., determination of alumina in manganese ore, B., 232.

Sekizawa, T. See Asahina, Y.

Selden Co., and Jaeger, A. O., improving the wetting properties of aqueous liquids used for treating textiles and other fibrous materials, (P.), B., 985.

Selditch, H. See Lehrman, A.
Selfridge, G. C., jun., X-ray and optical investigation of the serpentine minerals, A., 1483.

Seligman, A. M. See Fieser, L. F.

Selinger, E., protein content of human aqueous [humour], A., 1535.

Selinov, I. P. See Kurtschatov, I. V. Selisski, A. P., and Tschernuishev, V. V., eyaniding of iron for separators, B., 197.

Selivanov, B. P., Ginsberg, A. S., and Vorovitsch, M. M., chromium oxide in open-hearth slags, B., 22. Solubility of manganese sulphide in cupola slags, B., 22. Solubility of ferrous sulphide and manganese sulphide in cupola furnace slags, B., 410. Solubility of high-sulphur iron in cupola slag, B., 886. See Ginsberg, A. S.

Seljakov, N., to what class of symmetry does ordinary ice belong? A., 783. α - and β -Ice, A., 1326.

Stefanovski, A., and Hurgin, J., intensity of interference lines in Debye X-ray diagrams, A., 273.

Sce also Stefanovski, A.

Sellars, W. B. See Barthélemy, H. L. Selle, W. A., and Bodansky, M., effect of bromohexoic acid on rat sarcoma 39, A., 364.

Sellei, J., growth-accelerating and -inhibiting action of fluorescein on plants, with special reference to "fotosensin," B., 612.

Selous, C. F. See Perryman, P. W.

Seltz, H., and De Haven, J. C., free energy and heat of formation of intermetallic compound CdSb, B., 237.

Seltzer, J. M., water-absorption capacity of [sole] leather; Committee report, 1936 [of the American Leather Chemists] Association], B., 1169.

Seltzer, W., and Kraft-Phenix Cheese Corp., stabilisation of emulsified food products, (P.), B., 570. Stabilising material [jellforming seaweed as food ingredient], (P.), B., 811.

Selvig, W. A., check determinations of grindability of coal by various methods, B., 529.

See also Fieldner, A. C.

Selwood, P. W. See Pearce, D. W. Selwyn, E. W. H., theory of graininess,

B., 45. Selve, H., Browne, J. S. L., and Collip, J. B., effect of combined administration of estrono and progesterone in adult ovariectomised rats, A., 1564. Effect of testosterone on the mammary gland, A., 1564.

See also McEuen, C. S.

Selzer, R., problem of clinker burning without after-oxidation, B., 885.

Semenov, A. I., and Rjahtzev, I. I., gasification of peat and Moscow-basin coal in revolving ovens, B., 625.

See also Chekin, P.A.

Semenov, N., chain photochemical reactions, A., 1214.

Semenova, I., sodium hypochlorite from soda, B., 832.Semenova, V. N., treating lizard skins,

B., 382.

See also Peskin, J. I.
Sementschenko, V. K., properties of metallic solutions, A., 1192. Properties of metallic solutions. I., A., 1331.

Bering, B. P., and Pokrovski, N. L. [with Shvareva, E. E.], properties of metallic solutions. III. Surface tension of amalgams, A., 1459. and Ivanova, T. N., mutual solubility

and surface tension. II. Surface tension and dipole moment, A., 24.

Semerad, R. W. See Hendrich, M. W. Semerano, G., equilibrium between ethyl alcohol, water, and ethyl ether in the gaseous phase, A., 796. Equilibrium between n-butyl alcohol, water, and n-butyl ether in the vapour state, A., 797. Equilibrium between npropyl alcohol, water, and n-propyl ether in the gaseous phase, A., 797. Mechanism of photographic sensitisation and hypersensitisation for the red and infra-red, A., 943. Stability of solutions of infra-red sensitisers, B., 77. Hypersensitising action of

infra-red rays, B., 396. and Chisini, A., energy of electrolytic reduction of some substances with the atomic groups C:O and C:C, A., 1467. Polarographic analysis in the study of keto-enol tautomerism, A., 1488.

Semet-Solvay Engineering Corporation, and Oliveros, R. P., carburetted water-gas, (P.), B., 53.

and Ring, F. G., spirituous liquors, (P.), B., 249.

See also Hughes, C. H., Miller, M. J., and Tiddy, W.

Semon, W. L., and Craig, D., preparation of dihydroacridines by the Grignard reaction, A., 1124.

Ford, T. F., and Goodrich Co., B. F., mercaptoarylthiazoles, (P.), B., 922.

and Goodrich Co., B. F., antioxidants [for rubber], (P.), B., 896. Rubber composition and its preservation, (P.), B., 946. Antioxidants, (P.), B., 1082.

Sloan, A. W., and Goodrich Co., B. F., rubber compositions and preservation of rubber, (P.), B., 561. See also Goodrich Co., B. F.

Sempronj, A. See Dansi, A. Sen, B. See Chopra, R. N.

Sen, B. K., effects of heat and ultra-violet light on rectifying action of some crystals, A., 665.

Sen, B. N., atomic frequencies in alkali metals, A., 7. Liesegang phenomenon in precipitation of iodine in the absence of a gel, A., 156. Formation of Liesegang rings in presence of precipitates, A., 678.

Sen, D. C., camphor series. I. II. Synthesis of oximinothiccamphor and its application as an indicator in acidimetry and alkalimetry, A., 206, 856. Cyclic thioketones. I. Synthesis of non-polymerised thiocyclo-hexanone and -pentanone and their derivatives, A., 988

Sen, G. See Chopra, R. N. Sen, H. D., effect of conditions of growth on formation of the active principles

of Digitalis purpurea, B., 475. Joshi, K. C., and Gupta, G. N., analysis of typical samples of final molasses from Indian sugar[-cane] factories,

Sen, H. K., Roy, K., and Roy, P., routine gas analysis apparatus, A., 182. See also Banerjee, S.

Sen, K., Das, N., and Guha, B. C., pathological changes in the eye in experimental vitamin-B₂ deficiency, A., 1429. Sen, S. C. See Sircar, A. C.

Sen-Gupta, J., osmotic ratios of some Bengalese plants, A., 256.

See also Mukherjee, J. N.

Sen-Gupta, M. M., Mohanti, H. B., and Sharan, S., variation of alternatingcurrent resistance of nickel in longitudinal magnetic fields, A., 275 Sen-Gupta, N. See Mukherjee, J. N.

Sen-Gupta, P. K., absorption spectrum of nitrous oxide in Schumann region, A., 405. Absorption spectra of monoxides of alkaline-earth metals, A., 405. Chemical binding of certain oxides and sulphides, A., 668. See also Mathur, L. S.

Sen-Gupta, (Miss) \overline{T} . Sec Mitter, P. C. Senderens, J. B., and Aboulene, J., action of anhydrous alkaline earths on monohalogenated paraffins, A., 452. Action of sulphuric acid in the gas phase on alkyl chlorides and bromides, A., 961.

Sendrail, M., and Tamelet, L., [hypo]glycæmia and increased temperature produced by external factors, A., 1284.

Sendroy, J., jun., Shedlovsky, T., and Belcher, D., validity of determinations of the $p_{\rm H}$ of whole blood at 38° with the glass electrode, A., 1402.

Senftleben, H., and Braun, Winfried, effect of electric field on the heat current in gases, A., 1329.

and Pietzner, J., influence of magnetic fields on the heat conductivity of II. Variation with angle between magnetic field and direction of heat flow. III. Variation with pressure at small gas pressures, A., 1191.

Senftner, V. See Nord, F. F. Seng, L. E., and Union Products Co., [emulsified asphalt] coating composition, (P.), B., 109. Senger, N. See Ohle, H.

Sengoku, T., Sabatier's products of catalytic oxidation of cresols by thorium oxide at high temperature, A., 611. Crystal-line constituent of essential oil of matsubasa (Shizandra nigra, Maxim). I., A., 651.

See also Sugii, Y. Sengupta, P. N. See Raychaudhuri, D. P. Senior, B. J. See Gillam, A. E.

Senitschenko, S. E. See Hoftman, M. V. Sennac, R. See Spatz, R. Sennett, R. H. See Imperial Chem.

Industries.

Senokosov, P. A., extraction of potash from sunflower ash, B., 738.

Senseman, C. E. See Stubbs, J. J. Senseman, W. B., and Raymond Bros. Impact Pulverizer Co., calcination of gypsum, (P.), B., 319. Mill-drying process and apparatus, (P.), B., 960.

Senturia, B. D., urinary sulphur in non-specific arthritis, A., 504.

Séon, M. See Matignon, C. Serban, F. See Tomesco, P.

Serber, R., positron theory and proper energies, A., 656.

Serbina, G. N. See Smirnova, M. I. Serbina, A. See Kaulin, E. Serciron, M., copper sulphate, (P.), B., 1038. Basic copper sulphates and ammerical services of the company o monium sulphates, (P.), B., 1092.

Serck Radiators, Ltd., and Upton, H. E., tubular heat-interchanging apparatus such as coolers, condensers, or heaters,

(P.), B., 431. Serdiukov, V. I. See Juterev, V. F.

Serdiutschenko, D., zermattite and schweizerite from Dshemarakly-tjube Mt. in the Karatschai region, Caucasus, A., 699.

Serebrjakova, E.K. See Dementieva, M.I.

Serfass, E. J. See Theis, E. R. Serfaty, A. See Corteggiani, E.

Sergëenko, M. D. See Suknevitsch, J. Sergeev, A. P., and Koshuchovski, A. A., substitution of copper and silver by silver, A., 38.

Sergeev, B. F., and Atamantschukov, G. D., pine oil and its storage in metallie

containers, B., 649.

Sergeev, E. A. See Stender, V. V. Sergeev, M. E., and Belova, L. I., drop and fractional methods of determining magnesium, calcium, aluminium, iron, and silica [in leather, etc.], B., 948.

and Dvorkina, K. L., determination of chromium and iron in tanning solu-

tions and in leather, B., 948.

Sapegin, F. A., and Belova, L. I., determination of nitrogen in leather by the Kjeldahl method and by titration of the formol solution, B.,

Sergeev, L. V., punctiform corrosion in the pickling of steel "Enersh 6," B., 744.

Serger, \tilde{H} ., and Fleischer, F., shortening the period of sterilisation of vegetable conserves by addition of small amounts of lactic acid, B., 1066.

and Lüchow, G., detection of greening of preserved fruits and vegetables,

B., 1066.

Sergienko, S. R. See Lebedev, S. V. Sergievskaja, S. I., and Nesvadba, V. V., 5:6:7:8-tetrahydro-a-naphthylamine-4carboxylic acid, and certain of its derivatives, A., 1107.

Serio, F., effect of prolonged administration of hyperglycæmia-producing hormones,

A., 1424.

and Fiandaca, S., nitrogen not titratable by Kjeldahl's method, A., 1436. Serjakov, M., and Paramanova,

recovery of lanoline by extraction from waste waters of wool scouring, B., 13.

Serkin, W., efflorescence on concrete blocks, B., 836. Serono, C., and Cruto, A., effect of gonadotropic hormones on plants, A., 649.

Serpas, R. J., evaporating apparatus, (P.), B., 176.

Serpe, J., K radiation of boron, A., 1041. Serra, A., reactivity in solid state at ordinary temperature. II., A., 1321.

Serra, F. See Dreyfuss, P.

Serruys, M., classification of [motor] fuels, B., 134. Determining the practical

value of motor fuels by means of the "synthetic index," B., 728.

Servant, R., spectropolarimetry with metallic mirrors in the far ultra-violet, A., 697. Tungsten spark as light source for Schumann region, A., 1169. Spectropelarimeter for the Schumann region, A., 1223.

Servantie, L. See Damade, R. Servel, Inc. See Kuenzli, W. A. Service, T. M., corrosion, B., 743.

See also Burton, H. H.

Servigne, M., luminescence of solid substances produced by direct excitation in a Geissler tube, A., 1438.

Servy, J. See Geslin, H.
Seshacharyulu, E. V. See Dhar, N. R.
Seshadri, G. R. See Patel, J. S.
Seshadri, T. R., constitution of formic

acid and formates. II., A., 663.

and Rao, P. S., geometrical inversion of the acids derived from coumarins. II. Cis- to trans-. III. Trans- to cis-, A., 997, 1516. Reactivity of the double linking in coumarins and related a\beta-unsaturated carbonyl compounds. II. Action of mercury salts on coumarins, A., 1516.

See also Narayanamurthi, D. S., and

Neelakantam, K.

Seshadriengar, N. K. See Guha, P. C. Seshan, P. A., determination of fats in biological material, A., 914.

Seshan, P. K., absorption spectra of some aromatic compounds. I. Hydrocarbons. II. Quinones and quinols, A., 544. Influence of physical state on absorption and fluorescence spectra of organic substances, A., 544.

Sessions, A. C., fungicide adjustment; preparation to meet requirements of disease and host, B., 709.

and Stanco, Inc., copper fungicide, (P.),

B., 468.

Sessions, R. F. See McBain, J. W. Sessions, R. L., and Hughes-Mitchell Processes, treating [zinc-lead] ore material with a complex brine, (P.), B., 281. Chloridising of ore materials, (P.), B., 495.

See also Mitchell, T. A.

Sestini, Q., Roman puzzuolanic mortar, B., 791.

and Santarelli, L., effect of storage on properties of Portland and puzzuolanic cements, B., 836. X-Ray analysis in the control of cements, B., 836. Puzzuolanas. I. Zeolitic nature of puzzuolanas. II. Flocculation. III. Behaviour of cement-puzzuolana mixtures in excess of water, B., 885.

Seth, B. R. See Harris, F. C. Seth, S. R. See Gulati, K. C.

Sethi, D. R., manufacture of S.-B. sugar and construction of an improved furnace for boiling juice, B., 424.

and Ghosh, M. N., manufacture of gur and sugar from the juice of palmyra palm in Bihar, B., 424.
Seto, I., and Sato, Masanori, effecting

continuous hydrogenation and other catalytic reactions, (P.), B., 780.

Setter, C. G. See Holden, H. F. Setter, L. R. See Rudolfs, W. Setzer, L. Sec Steinkopf, W.

Seumel, G., effect of crystal boundaries on test specimens consisting of several large crystals, A., 1328.

Sevag, M. G., and Neuenschwander-Lemmer, N., dehydrogenation of lactic acid by staphylococci, A., 1028.

Sevals, N. Sco Batchelder, E. L. Sevastianov, N. G. See Bachmetev, E. F. Severens, J. W. See Fabian, F. W.

Severin, S., Georgievski, E., and Tunin, V., effect of CO_2 tension and temperature on the dissociation curves of the oxyhæmoglobin of blood, A., 1007.

Severjanova, M. G. See Karshev, V. I. Severny, A. B. See Gorbatschev, S. V.

Sevieri, V., grain composition of cements, B., 455. Grain analysis of cement, B., 545.

Seving, F. W., Bergqvist, A., and Olsson, K. E., heat-insulating materials, (P). B., 721.

Sevtsch, A. N. See Vavilov, S. I.

Sexl, T., capacity of elements for dis-integration, A., 541. Scattering and absorption of particles by nuclei. I., A., 774.

Sexton, D. L., interpretation of lowered basal metabolic level, A., 506.

Sexton, W. A. See Imperial Chem. Industries.

Seybold, A. U., and Mathewson, C. H. solubility of oxygen in solid cobalt and the upper transformation point of the metal, B., 995.

Seydel, G., vapour-pressure measurements on "Apiezon" high-vacuum greases, B., 557.

Seydel, H., application of chlorinated hydrocarbons in treatment of sewage, garbage, etc., (P.), B., 814. Seydel, P., warp sizing [of cotton yarns],

B., 189.

Seyderhelm, R., [antianæmic substance of

liver], B., 667.

Seyer, W. E., and Donald, R. J., corrosion of milk tins in ocean transit, B., 904.

Seyer, W. F., and Fordyce, R., mutual solubilities of hydrocarbons. I. F.-p. curves of dotriacontane (dicetyl) in propane and butane, A., 1456.

and Hodnett, L., systems: sulphur dioxide and mono-olefines. I. Caprylene and sulphur dioxide, A., 931.

Seyewetz, A., production of fine-grain [photographic] images by development, B., 172. Fine-grain development, B., 348. Use of o-phonylenediamino for development of fine-grain images, B., 1180.

and Szympson, S., influence of the nature and amount of alkali on the reducing power of photographic developers, B., 1131.

Seyfried, W. R., dicalcium phosphate, (P.), B., 18.

Seymour, G. W. See Celanese Corp. of America.

Seymour, W. A., apparatus for feeding materials to grinding mills, (P.), B.,

Seymour, W. J., and Greenstein, A. W., determination of insolubles in mimosa extracts, with a note on colour measurement, B., 512.

Sgarzi, L. See Mezzadroli, G., and Votoček, E.

Sgarzi, M. See Bellucci, L.

Shackleton, L., and McCance, R. A., ionisable iron in foods, A., 914.

Shackleton, L. R. B. See Jones, E. I. Shadanovskaja, A. P. See London, M. E. Shadduck, H. A., neutron, A., 1044. Shafer, G. E. Seo Hoover, G. R.

Shaffer, W. M., and Cameron, D. M., Raman effect and dissociation of KHSO4, A., 935.

Shafter, R. R., Bernhard, R., and Traylor Eng. & Manufg. Co., calciner, (P.), B., 128, 1100.

Shagalov, A. J. See under Schagalov, A. J. Shaggars, K. B., physico-chemical properties of Ui and Uvelka river water, A., 957.

Shah, N. M., and Alimchandani, R. L., chloral derivatives of salicylic acid, A., 1378.

Shah, R. C., and Heeramaneck, V. R., imidochlorides. III. Reaction of anilide imidochlorides and ethyl sodiomalonate, A., 737.

and Ichaporia, M. B., imidochlorides. IV. Condensation of anilide imidochlorides with urethanes; new synthesis of 4-hydroxy-2-phenylquinazolines, A., 737.

and Mehta, P. R., C-alkylresorcinols. I. 4:6-Diethylresorcinol and its reactions. II. Synthesis of polyalkyl-resorcinols, A., 840, 1245. Synthesis of 2:4-dihydroxybenzophenone, A., 1256.

Mehta, C. R., and Wheeler, T. S., identity of noroxylin and baicalein, A., 610. Constitution of oroxylin, A., 733. Constitution of oroxylin-A, a yellow colouring matter from the root-bark of Oroxylum indicum, Vent, A., 860.

Shah, S. V., and Chakradeo, Y. M., m.p.

of cane sugar, B., 564. Shaha, A. See Goswami, M.

Shako, T. See Ishizaka, N.

Shambon, A. See Watson, W. W. Shamkin, N. M. See Kaplin, P. I. Shamovski, L. M. See Kapustinski, A. F. Shand, S. J., mineralogical classification of igneous rocks, A., 50.

Shands, H. L. See Dickson, J. G.

Shaner, M. L., and Willard, M. L., identification of yohimbine, A., 1398. Optical crystallographic data for some salts of the cinchona alkaloids, A., 1450.

Shang-Yi, C., Chao-Ying, M., and Band, W., transmission of ultra-violet radiation through Chinese window papers, B., 449.

Shankarnarayanan, S. See Varma, P. S.

Shanker, J. See Prasad, M. Shankland, R. S., apparent failure of photon theory of scattering, A., 265.

Scattering of γ -rays, A., 1313. Shankweiler, F. K., new protective coatings for paper, B., 925.

See also Hercules Powder Co.

Shannon, J. A., excretion of insulin by the dog, A., 250. Excretion of phenol-red by the dog, A., 513. Renal excretion of creatinine in man, A., 754. Excretion of inulin and creatinine at low urine flows by the normal dog, A., 1406.

and Smith, Homer W., excretion of inulin, xylose, and urea by normal and phloridzinised man, A., 755.

Shapiro, B. G., and Zwarenstein, H., relation of the pituitary gland to muscleereatine, A., 1426.

Shapiro, C. L., brittleness in steel, B., 196. Shapiro, H. A., and Zwarenstein, H., diagnosis of pregnancy by the S. African clawed toad (Xenopus lævis), A., 1541.

Shapiro, U. G. See Hughes, E. D. Shappirio, S., metallo-organo-derivatives [anti-knock fuel], (P.), B., 869.

Shappell, M. D., cleavage of ionic minerals, A., 817.

Sharan, S., anode-sputtering and the deposition of metallic film on the cathode of a Hadding X-ray tube, A., 1452.

See also Sen-Gupta, M. M.

Share, S. S., coulomb energy of ³He, A., 1316.

See also Feenberg, E.

Sharlit, H., treatment of tobacco, (P.), B.,

Sharma, J. N., and Food Machinery Corp., composition and process for treatment of fruit, (P.), B., 523.

Sharma, N. L., and Nandy, N. C., petrological classification of the basic intrusives of Danta state (H. Gujrat),

and Purkayastha, S., heavy minerals of the "Erinpura" granite and micro-granite of Danta state (N. Gujrat), A., 50. Heavy mineral assemblage of white clay and ochres associated with the laterite of Schawal State, Central India, A., 450.

Sharma, R. L. See Bhatnagar, S. S. Sharma, R. S., absorption spectrum of hydrogen peroxide vapour, A., 1317.

Sharma, S. K., application of the thiocyanogen value to the determination by Kaufmann's method of oleic and linoleic acids in natural oils which are free from linolenic acid, B., 700.

Sharma, V. N., and Dutt, S., metallic titanium in organic synthesis, A., 713.

Sharp, D. E. See Lyle, A. K. Sharp, H. P. See Smith, F. J. Sharp, P. F., variations in titratable

acidity of milk, B., 250.

and Struble, E. B., glass head for laboratory water still, A., 1085. Period of lactation and direct titratable chloride value of milk, B., 344. See also Troy, H. C.

Sharp, T. M., 9-acetamido-2:3:4:6-tetramethoxyphenanthrene, A., 1246.

Sharp, W. E., chlorinated hydrocarbons, (P.), B., 870. [Dry-]cleaning fluid,

(P.), B., 930. Sharp & Dohme, Inc., lyophilic, biologically active substances, (P.), B., 954. Biologically active substances, (P.), B., 954.

See also Hartung, W. H., Johnson, T. B., and Reichel, J.

Sharpe, D. B. See Nelson, C. S. Sharples, P. T., and Sharples Solvents Corp.,

protection of vegetable matter against injurious animal life, (P.), B., 1172.
Sharples Solvents Corporation. See Clark,

L. H., Olin, J. F., Sharples, P. T., Thomas, C. A., and Wilson, M. M.

Sharples Specialty Co., and Ayres, A. U., centrifugal separators, (P.), B., 577. Ayres, A.U., and Brewer, N., continuous

purification of liquids, (P.), B., 816. Bethlehem Steel Co., Ambler, C. M., jun., and Underwood, C. E., treatment of tar

[to recover tar acids], (P.), B., 1079. and Jones, L. D., centrifugal separation of mixtures, (P.), B., 3. Dewaxing of oil, (P.), B., 629, 916.

Sharples Specialty Co. See also Ambler,
C. M., jun., Jones, L. D., and Scott, A. T.
Sharpless, G. R., limitation of fluorine toxicosis in the rat with aluminium chloride, A., 1417.

Sharratt, E., and Wardlaw, W., methylalkoxyglyoximes as chelate groups, A., 825.

See also Cox, E. G. Shatwell, H. G., distillation of coal-tar

phenols, B., 865.
Shaver, W. W. Seo Corning Glass Works.
Shavoronkov, N. M. Seo Juschkevitsch,
N. F., and Kritschevski, I. R.

Shavoronkov, P. V., Alechina, A. P., and Schter, R. S., divinylacetylene and its derivatives, A., 310.

Shavoronkova, A. M. See Golombik, M. S. Shavoronok, S. G., formation of hydrogen sulphide and sulphur dioxide in the vulcanisation of rubber, B., 1008.

Shaw, A.O. See Woods, E.

Shaw, C. See Imperial Chem. Industries.
Shaw, C. F., terms indicating origin of soils, B., 383. What characteristics distinguish pedalfers from pedocals? B., 383.

See also Kelly, W. P. Shaw, C. P., and Detroit Moulding Corp., offset printing ink, (P.), B., 30.

Shaw, D. T., filtration through compressible homogeneous sludges, B., 575.

Shaw, E. H., jun. See Helgeson, J. Shaw, E. M., jun. See Leekley, R. M.

Shaw, F. H., formation of acetylcholine in the body, and an investigation of the

choline-esterase. I.—III., A., 379. Shaw, G. T. See Steacie, E. W. R. Shaw, H. See Montgomery, H. B. S.

Shaw, H. I., and Hoerle, N. S., hardening grey and mottled cast iron, (P.), B., 795. Shaw, H. R., and Swezey, J. A., Waialua irrigation investigations, B., 516.

Shaw, J. A., determination of nitric oxide in coke-oven gas, B., 773.

Shaw, J. F. See King, J. G. Shaw, J. K., and Southwick, L., heavy mulching in bearing apple orchards, B.,

Shaw, L. See Keitt, G. W.

Shaw, L. A., physiological effects of high pressures, A., 1529.

Behnke, A. R., Messer, A. C., Thomson, R. M., and Motley, E. P., equilibrium time of gaseous nitrogen in the dog's body following changes of nitrogen tension in the lungs, A., 220.

See also Behnke, A. R. Shaw, L. I. See Johnson, A. G.

Shaw, M. B. See Weber, C. G. Shaw, R. W., ultra-violet stellar spectra with aluminium-coated reflectors. IV. Spectrum of a Boötis, A., 1040.

and Ketcham, H. C., vibrational analysis of the hafnium oxide band spectrum, A., 8.

Shaw, S. H., micrometric estimation of quartz in rocks, B., 1093.

Shaw, W. S., pectic substances in tea, A.,

651. Aroma of tea, A., 651. and Jones, K. B. W., theotannin: chemistry of tea. I. Theotannin in relation to green leaf. II. Theotannin in relation to black tea, B.,

520. Shawhan, E. N., rotational constants of SnS, A., 920.

and Morgan, F., band spectrum of arsenic oxide and lead oxide, A., 1317. See also Morgan, F.

Shawinigan Chemicals, Ltd., compositions containing [polyvinyl] synthetic resins, (P.), B., 288. Compound glass, (P.), B., 545. Form-stable thermoplastic compositions and articles made therefrom, (P.), B., 654. Acetic anhydride, (P.), B., 920. Manufacture of films, threads, sheets, etc., and of [polyvinyl] resins therefor, (P.), B., 1218.

Matheson, H. W., and Morrison, G. O.,

mixed polyvinyl resins, (P.), B., 560.

See also Irany, E. P.Shdanovitsch, J. See Menschikov, G.Shear, M. J., tumour tissue. II. Effect of protein on swelling of normal and tumour cells of mice in vitro, A., 1014.

Sheard, H., thermal constants of setting concrete, B., 596.

Shearer, A. B., rayon manufacture, with particular reference to recent technical developments, B., 635.

and Hegan, H., suitability of rayon for motor-tyre yarns, B., 185.

Shearer, J., wave-length measurements in the K-series of aluminium, sulphur, and chlorine, and in the L-series of zinc, A., 399.

Shearer, W. L., plastometer, (P.), B., 131. Shearman, R. W. See Miles, F. T. Shebrovski, V. V. See Akim, L. E.

Shedlovsky, T., and MacInnes, D. A., determination of activity coefficients from the potentials of concentration cells with transference. II. Hydrochloric acid at 25°, A., 1463.

See also Sendroy, J., jun.Sheehan, D. See Mahoney, W.

Sheehan, J. A., control of moisture content in paper undergoing progressive drying, B., 539.

Sheehy, J. R., calcium therapy in "staggers" in the bullock, A., 506.

Sheely, M. L., report of the [A.O.C.S.] Soap

Analysis Committee—1935, B., 748. See also Irwin, W. H.

Sheen, R. T., and Kahler, H. L., direct titration of sulphates; tetrahydroxybenzoquinone as internal indicator, A., 577.

Sheepbridge Stokes Centrifugal Castings Co., Ltd., case-hardened [cast-iron] piston

rings, (P.), B., 1045.

Sheffield Farms Co. Inc. See Chappell, F. L.

Shefstead, G. O. See Texas Co.

Sheldon, H. W., and Socony-Vacuum Oil Co., apparatus for contacting liquids, (P.), B., 528.

Sheldon, J. H. See Ramage, H. Sheldrick, G. See Haworth, R. D. Sheldrick, W. A. See Diamond, W. J.

Sheleznov, A. I., activity of the Dnieper Aluminium Combine during nine months of 1934, B., 199. and Maximenko, B. N., production of

aluminium-silicon alloys, directly in commercial electrolytic cells, B., 746.

Shell Development Co., and Bacon, R. R., heating of fluids, (P.), B., 963.

and Carney, S. C., fractionating process and apparatus, (P.), B., 352. Recti-fication process and apparatus, (P.), B., 1072.

Carney, B. R., and Crosby, R. H., treatment of mineral oils, (P.), B.,

and Candri, J. F. M., purification of high-boiling mineral acids, (P.), B.,

and Clulow, F. S., coloured lubricating oil, (P.), B., 630.

Shell Development Co., Deanesly, R. M., and Engs, W., substantially pure tert.-olefines, (P.), B., 779.

and De Bruyn, C. B., fertilising soil, (P.), B., 807. and Dijck, W. J. D. van, refined products

from mineral oils, (P.), B., 821.

Engs, W., and Moravec, R., selective removal of tert.-base olefines, (P.), B. fines, (P.), B., 917. Tertiary alcohols, (P.), B., 1192. 632. Segregation of tertiary-base ole-

and Frenkel, G. A., carbon black,

(P.), B., 85. Hund, W. J., and Rosenstein, imidols [hydroxyalkylamides], (P.), B., 90.

and Janssen, H. J. J., metals from ores,

(P.), B., 1101.

and Kramer, G. A., apparatus for treatment of immiscible liquids, (P.), B., 962. Fractionation control, (P.), B., 963.

and Lacomble, A. E., pure mercaptans, (P.), B., 683.

and Limburg, H., mineral oil, (P.), B., 821.

and Malherbe, G. J., livestock spray, (P.), B., 853.

and Malishev, B. W., stabilised phosphorus pentoxide, (P.), B., 884.

Millar, R. W., and Steck, L. V., acetalde-

hyde, (P.), B., 824.

and Peski, A. J. van, treatment of [cracked] mineral oil distillates, (P.), B., 778. Stabilising acid liquor [in the manufacture of alcohols from olefines], (P.), B., 919.

and Pyzel, D., distillation of ammonia, (P.), B., 641. Absorption and distillation of ammonia, (P.), B., 788.

and Pyzel, E., catalytic converter, (P.), B., 353.

Pyzel, E., and Tillmann, Richard, separation of liquids from gases, (P.), B., 130. and Pyzel, F. M., ammonium sulphate, (P.), B., 453.

Pyzel, F. M., and Ruys, J. D., ammonium sulphate, (P.), B., 1151.

and Rosenstein, L., nitrates from metal halides, (P.), B., 789. Heat transmission [to fluids], (P.), B., 911. and Swerissen, H. T., treatment of

mineral oil residues, (P.), B., 822.

Taylor, J. F. M., and Lounsbury, H. I., treatment of cracked oil distillates, (P.), B., 682.

and Yates, W. J., germicide, (P.), B.,

Shellmar Products Co. See Gurwick, I. Shelton, R. S., and Rider, T. H., synthesis of dibenzoyl disulphide, A., 1106.

Shelvoke & Drewry, Ltd., and Drewry, J. S., apparatus for removal of supernatant liquid from solids in containers, (P.), B., 81. Apparatus for reception of sludge, (P.), B., 480.

Shemotschkin, A. I. See Kaplnnov, J. N., and Rusakov, M. G.

Shen, T. C., air analysis apparatus, A.,

Shennan, R. J., Smith, J. H. F., and Ward, A. M., anthranilic acid and its use in determination of zinc, cadmium, cobalt, nickel, and copper, A., 951.

Shenstone, A. G., first spark spectrum of copper, A., 537. Hyperfine structure of the cadmium resonance line, A., 1040.

Shepard, A. F. See Midgley, T., jun.

Shepard, D. A. See Standard Oil Development Co.

Shepard, N. A., onward march of rubber, B., 705.

Shepard, O. C., electrocapillary amalgamation [of gold ores], B., 503. Cause of bubble attachment in flotation, B., 797.

Shepeard, $W.\ L.$ See McDonald, $C.\ H.$ Shepherd, $F.\ J.$ Sco Renwick, $F.\ F.$

Shepherd, H. H. See Crane, Ltd.
Shepherd, T. C. R. See Moritz, M. R.
Shepherd, T. L., clastic rubber thread,
(P.), B., 208, 381. Rubber or elastic thread, (P.), B., 289. Rubber or elasticyarn filaments or threads, (P.), B., 314. Rubber threads, etc., (P.), B., 381. Threads or filaments from rubber latex, etc., (P.), B., 381. Threads or filaments of artificial silk, etc., (P.), B., 539. Rubber thread or filament, (P.), B., 848. Rubber threads, (P.), B., 848. [Rubber] filaments and threads, (P.),

Shepherdson, A. See Imperial Chem. Industries.

B., 946.

Shepilevskaja. See under Schepilevskaja. Sheppard, F., and Everett, M. R., colour reactions of keturonio acids and a colour test differentiating a- and β-glucosides, A., 1489.

Sheppard, S. E., temperature and formation of the latent image, B., 348. Photo-

graphic sensitivity, B., 572. and Brigham, H. R., new organic reagent for metals, particularly silver, A., 1000.

and Hudson, J. H., pressed-foam gelatin, B., 706.

See also Eastman Kodak Co.

Sherard, H., comparison of calcium cyanamide and other standard sources of nitrogen on maize and cotton in Coastal Plains soils, B., 385. Comparative value of calcium cyanamide and ammonium sulphate in yield_of Irish potatoes on Bladen fine sand, B., 515.

Shereshefsky, J. L., and Steckler, (Miss) S., evaporation of small drops and relationship between surface tension and curvature, A., 411.

and Weir, C. E., adsorption of vapours on glass spheres. I. Adsorption of nitrogen, A., 1457.

Sherko, A. V. See Dintzes, A. I.
Sherman, A., and Li, N., mechanism of
thermal reaction between gaseous iodine monochloride and hydrogen, A., 684.

See also Gillette, R. H., and Moelwyn-

Hughes, E. A.
Sherman, C. C., Mendel, L. B., and Smith,
A. H. [with Toothill, M. C.], citric acid formed in animal metabolism, A., 513. Metabolism of orally administered citric acid, A., 513.

See also Pucher, G. W. Sherman, H. C., calcium as a factor in nutritional improvement of health,

A., 512.

and Campbell, H. L., effects of increasing calcium content of a diet in which calcium is one of the limiting factors, A., 512. Regularity of nutritional response to chemical intake, A., 1409.

See also Bisbey, B., Conner, R. T., Toepfer, E. W., and Whitcher, L. B. Sherman, J., reaction rates of non-isothermal processes, A., 1343.

Sherman, J. M., Erb, N. M., and U.S. Industrial Alcohol Co., manufacture of solvents [by fermentation], (P.), В., 1123.

and Hodge, H. M., thermophilic and anaërobic nature of Lactobacillus

bulgaricus, A., 1422.

and Wing, H. U., unnoted hamolytic streptoccocus associated with milk products, B., 471.

See also Talbott, J. H.

Sherman, M. S. Sec Milner, R. T.

Sherman, R. A., and Kaiser, E. R., clinker formation in small underfeed stokers; use of addition agents to promote clinkering of refractory ashes, B., 864. Combustion of bituminous coal on the small underfeed stoker, B., 1026.

Sherman, R. L., and Myers-Sherman Co.,

hammer mill, (P.), B., 528. Sherman, W. C., and Elvehjem, C. A., invitro studies on lactic acid metabolism in tissues from polyneuritic chicks, A., 887.

Sherr, R. See Bleakney, W. Sherrill, J. W., and MacKay, E. M.,

renal threshold for glucose in man, A., 95. Sherrill, M. L., and Mollet, P., absorption spectra in the near infra-red of

[saturated and] ethylenic hydrocarbons, A., 1444.

and Walter, G. F., preparation and physical constants of β -methyl- Δ^{α} -butene,

A., 819. See also Errera, J., and Thompson, D. D. Sherrill, M. S., and Haas, A. J., jun., oxidation potential of thallous and thallic salts, A., 938.

Sherts, J. H., and Fix, E. L., new [type of]

safety glass, B., 543. Sherwen, J. W. See Gen. Electric Co. Sherwin-Williams Co. See Todd, J. D.

Sherwood, I. R., rôle of rennet in ripening of Cheddar cheese, B., 121. Function of pepsin and rennet in ripening of Cheddar cheese, B., 392.

Short, W. F., and Woodcock, J., phenanthrene series. III. 9-Hydroxyphen-

anthrone, A., 720.
Sherwood, N. P. See Wells, A. Y.
Sherwood, R. C. See Bailey, C. H.

Sherwood, T. C., and Bowers, L. M., offect of ovarian hormone on the basal metabolism of experimental hyper-thyroidised rats, A., 1427.

Sherwood, T. K., air-drying of solids, B., 767.

Shevki, S. H. See Whitehead, J. B. Shibata, H., and Koibuchi, M., characteristics of the welding flux affecting the welding arc, B., 552.

Shibata, K., and Watanabe, A., catalytic action of complex metal compounds, A., 805. Cell respiration and carbon dioxide assimilation in heavy water, A., 1305.

See also Shibata, Y.

Shibata, Rin-nosuke, and Nishi, T., thioindigo syntheses. I. Synthesis of 6:6' - dichloro-4:4' - dimethylthioindigo and 6:6'-dichloro-4:4'-dimethoxythioindigo, A., 1387.

and Okuyama, M., action of chloroacetic acid on naphthols, A., 980. Thioindigo syntheses. II. Bromination of 6:6'-dichloro-4:4'-dimethylthioindigo, 6:6'-dichloro-4:4'-dimethoxythioindigo, and thioindigo-red, A., 1387.

and Sassa, A., thioindigo syntheses. III. Condensation products of thio-indigotin-7:7'-dicarboxylic acid chloride with aromatic amines, A., 1387.

Shibata, Ryoji, detoxicating hormone of the liver. LVIII. Effect of yakriton in one-fifth R.A.U. on blood picture including nuclear shift, A., 645.

Shibata, Y., and Goda, S., action of light on catalytic oxidation by metallic

complex salts, A., 808.

and Kaneko, H., oxidising action of colloids. I. Oxidation with colloidal metals, A., 804. Kinetics of oxidising action of complex metal salts, A., 804. Decomposition of hydrogen peroxide by complex metal salts, A., 804.

and Sakai, K., asymmetric oxidation. III. Inhibiting action of some asymmetric organic acids on asymmetric

oxidation, A., 805. and Shibata, K., oxidase-like action of complex metal salts, A., 804.

and Tamasaki, K., catalytic oxidising action of colloids, A., 805.

Tanaka, Yasuo, and Goda, S., asymmetric oxidation. II., A., 805. and Tsuchida, R., asymmetric oxidation.

I., A., 805.

and Yamabe, T., catalytic reduction of complex metal salts, A., 805.

and Yamasaki, Kazuo, oxidase-like action of complex metal salts; metol, A., 805.

Shibata, Z., reduction equilibrium metallic oxides. VIII. Effect equilibrium of thermal diffusion on the determination of equilibrium constants in the systems FeO + $H_2 \rightleftharpoons$ Fe + H_2O and Fe₂O₄ + $H_2O \rightleftharpoons$ 3FeO + H_2O , A., 1204.

and Kitagawa, H., reduction equilibrium of metallic oxides. VII. Determination of the thermal diffusion effect in mixtures of hydrogen and oxygen,

A., 1204.

Shibuya, K., and Saeki, H., sorption of gases in soil, B., 657.

Saeki, H., and Ryu, K., changes of oxidation-reduction potentials water-logged soils, B., 466.

and Torii, \overline{T} ., unfavourable effects of iron salts on availability of potash fertilisers,

Shicharevitsch, S. A., and Lukova, S. D., earthenware stirrers for mechanical [sodium] sulphate ovens, B., 989.

Shidei, T., band spectra of carbon deuteride, A., 1176.

Shields, A. L., electrodeposition of tin, B., 795.

Shiels, E. See Landis, E. M.

Shiels, E. H. See Elsom, K. A.

Shiffler, W. H. See Standard Oil Co. of California.

Shiflett, C. H. See Hull, D. E.

Shiga, K., Cottrell process applied to the shale oil industry at Fushun, B., 403. Shigatsch, A. F. See Razuvaiev, G. A.

Shigemi, H., metabolism of inorganic salts and water in hepatic disturbances. I. and II., A., 1141.

Shih, J. W., magnetic anisotropy of nickelcobalt single crystals, A., 1187.

Shih, W. Y. See Tseng, C. L. Shiina, S., synthesis of normal C₂₃, C₂₅, C₂₇, and C₂₉ saturated fatty acids, alcohols, and alkyl iodides, A., 966.

Shikata, M., Fuknwatari, S., and Akagi, K., pulp from Manchurian cotton stem. I., B., 1035.

Honda, S., Nishida, H., and Saito, M., pulp woods and rayon pulp. X. Manufacture of rayon pulp from hard woods, B., 1035.

Shikata, M., and Naganuma, S., active carbon from Karafuto tundra peat. I. Comparison of raw materials of active carbon, B., 131.

and Tadokoro, K., viscose pulp and pulp woods. VIII. Composition and cooking test of Manchurian fir (Abies nephrolepsis, Maxim), B., 141.

and Tutiyama, I., viscose pulp and viscose-pulp woods. VI. Microbiological decay of Japanese beech,

B., 56.

Umemura, A., Nishida, H., and Urano, N., pulp woods and rayon pulp. IX. Chemical constituents of woods of Chosen, B., 1035.
Shikazono, N. See Mashino, M.
Shiley, E. C., and Wetter, J. W., crusher

[for coal], (P.), B., 352. Shilkina, M. M. See Bosin, A. G.

Shillaber, C. P., and Quigley Co., reclaiming crank-case oil, (P.), B., 359.

Shillenn, P. A., and Radio Corp. of America, duplicator fluid, (P.), B., 462

Shilling, C. W. Seo Hawkins, J. A.

Shillito, F. H., Bidwell, E. H., and Turner, K. B., blood-cholesterol in the carotid artery, venæ cavæ, and portal vein, A., 357.

Shilov. See under Schilov.

Shimada, J., experimental scurvy. XX. Leucocytes in blood of guinea-pigs on a vitamin-C-free diet. XXII. Amounts of reducing substance and hydrolysed sugar in urine of guinea-pigs on a vitamin-C-free diet, A., 366. Shimamoto, T. See Sahashi, Y., and

Zaidan Hojin Rikagaku Kenkyujo.

Shimasaki, S., constitution of atomic nuclei and their magnetic moments, A., 774.

Shimbo, K., cellulose resources. Cotton stalk, B., 311.

Shimizu, T., and Kazuno, T., toad bile. acid. III. Trihydroxyisosterocholenic C28H46O5, from winter bile. IV. Constitution of trihydroxybufosterocholenie acid, A., 469.

Shimkin, M. B., and Anderson, Hamilton H., acute toxicities of rotenone and mixed pyrethrins in mammals, A.,

1553.

See also Anderson, Hamilton H.

Shimmura, T., testing of coke hardness, B., 482.

Shimo, M. See Nakazawa, R.

Shimoda, I., preparation of cellulose by the nitric acid decomposition process. I. Decomposition of wood with nitrogen peroxide. II. Decomposition of rice straw with nitric acid. III. Decomposition of rice straw with dilute nitric acid, B., 267, 448, 490.

Shimodaira, K. See Hoshino, T.

Shimp, J. H. See Whittaker, C. W.

Shimwell, J. L., cultural characteristics of

Saccharobacillus Pastorianus, B., 118. Hop antiseptic as a possible cause of ropiness [in becr], B., 389. Common rod bacteria of brewers' yeast, B., 389. Saccharobacillus infection, B., 1121.

Shinkai, S., determination of fluorine, A., 950.

Shinkle, S. D., Brooks, A. E., and Cady, G. H., new plastic material "AXF,"

B., 704. and U.S. Rubber Co., plastic, elastic material [from ethylene dihalides and benzene derivatives], (P.), B., 1111. Shinkle, S. D., and U.S. Rubber Co., composition comprising rubber plastic elastic material, (P.), and(P.), 1111.

Shinn, J. V. See Gen. Chemical Co. Shinoda, J., and Ueda, S., fukugetin, the colouring matter of the bark of "fukugi." III., A., 610.

Shinoda, R., and Inagaki, E., measurement of viscosities of cellulose acetates for aeroplane dopes, B., 1085. Viscosity of cellulose nitrates, B., 1085. Shinohara, K., determination of thiol

and disulphido compounds, with special reference to cysteine and cystine. III. Reaction between thiol compounds and mercuric chloride. IV. Accurate determination of thiol compounds; standardisation of cysteine hydrochloride. V. Cystine determination by sulphite and phospho-18tungstie acid reagent, A., 60, 353.

and Padis, K. E., determination of thiol and disulphido compounds, with special reference to cysteine and cystine. VI. Reaction of ascorbic acid and glutathione with phospho-18-tungstic acid reagent. VII. Modified phospho-18-tungstic acid method of determining cysteine, cystine, and ascorbic acid in urine, A., 353.

See also Ridenour, L. N.

Shinozaki, Y., Kagawa, S., and Sato, Masanori, high-pressure hydrogenation of soya-bean oil. V. Preparation of

light hydrocarbon oil, B., 379.

Shioiri, M., and Kobayashi, Takashi, availability of nitrogen in activated sludge, B., 658.

Shionoya, S. See Uchida, S. Shipkov, P. F., combined vegetable and chrome tanning, B., 383.

Shipley, J. H. See Shipley, J. W. Shipley, J. W., and Calhoun, J. M., electrolytic preparation of anthranilic acid, A., 69.

and Shipley, J. H., electrode potential of iron in relation to $p_{\rm H}$, A., 430. Shipp, M. E. See Hetherington, D. C.

Shippin, E., printing plates, (P.), B.,

Shiraeff, D. A., and Jacobs, F., photographically printed fibrous products [photographic prints on silks, paper, leather, etc.], (P.), B., 860.

Shirahama, K., unsaponifiable matter of algo fats. I. Sterol. II. Pelvesterol from Higikia fusiformis (Harv.), Okam,

A., 258, 1307. Shirakawa, Y. See Honda, K., and Masumoto, H.

Shirnova, N. A., solubility of minerals containing titanium in relation to rational analysis of clays by the method of hydrochloric acid and soda extracts, B., 834.

Shishido, H. See Goto, K., Kitasato, Z. Shishkina, N. N. See Faerman, G. P. Shitlovskaja, A., oil-resisting mixture with

100% synthetic rubber, B., 753.
Shiueq-Shann, L., magneto-optical dispersion of acetylacetone, A., 551.

Shive, J. W. See Beckenbach, J. R., and Doehlert, C. A. Shlvely, W. L. See Koppers Co. of

Delaware.

Shivotovski, A. G., alkaline absorption of nitrogen oxides, B., 232. Shkolnikov, J. A. See Kitaigorodski,

I. I.

Shnidman, L., behaviour of sulphur in fuel gas and properties of its products of combustion with respect to condensation and corrosion, B., 482.

See also Yeaw, J. S.Shnidman, L. S. See Wilkins, T. R.Shoals, F. H., and Modern Panels, Inc.,

adhesive, (P.), B., 1222.

Shock, N. W., and Hastings, A. B., acidbase balance of blood. IV. Characterisation and interpretation of displace-

ment of acid-base balance, A., 223. Shockley, W. See Johnson, R. P. Shoeld, M., and Oberphos Co., phosphate fertiliser, (P.), B., 387.

See also Koppers Co. of Delaware. Shoemaker, B. H. See Standard Oil Co. Shoemaker, H. A. See Whelan, M.

Shoemaker, J. S., sugar, acidity, and juicecolour determinations in grapes, B., 121. Shoemaker, M. J., catalytic removal of

iron from water, B., 254.

Shoenberg, D., superconductivity and other low-temperature phenomena, A., 147. Magnetisation curves of a superconducting sphero and ring, A.,

and Uddin, M. Z., magnetic properties

of antimony, A., 1190.

Shoesmith, J. B., and Mackie, A., derivatives of tert.-butylbenzene and transmitted polar effects, A., 599.

Shoikhet, I. I. See Chelemski, M. Z.

Shōji, K., aromatic compounds of "kasutorishochu," A., 910. Flavour of shōyu. II. and III., A., 910.

Shoji, T. See Tanahashi, T.

Shonkwiller, F. L., developments in paper drying, B., 784.

Shonle, H. A., and Doran, W. J., di- and tri-alkylbarbituric acids, A., 1267.

and Lilly & Co., E., ethylsec.-heptylbarbituric acids and salts thereof, (P.), B., 571. Alkyl-substituted ethylhexylbarbituric acids, (P.), B., 571. Allylsec.-amylbarbiturio acids and salts, (P.), B., 571.

Waldo, J. H., Keltch, A. K., and Coles, H. W., relation of structure of dialkylbarbituric acids to length of their [anæsthetic] action, A., 736.

Shoppee, C. W., 1:2:3-triketotetramethylcuclopentane: a blue triketone, A., 473. s-Di-p-anisylpinacol. A., 842. See also Baker, J. W., and Ingold, C. K.

Shore, A., Wilson, Hildegarde, and Stueck, G., amide-nitrogen of ovalbumin, A.,

Shorland, F. B., and Brooker, S. G., composition of pampas grass (Cortaderia argentea), B., 346.

and McIntosh, I. G., New Zealand fish oils. I. Composition of eel oil (Anguilla Aucklandii), A., 1403.

and Wall, E. M., action of certain reagents on the "loosely bound" iron in blood, A., 876. Determination of total iron in blood, A., 876.

Shorland, F. M. See Wall, E. M. Shornitzki, I. G. See Stender, V. V. Shorrock, J. N. See Rhead, T. F. E. Short, A. A., and Dunleavie, C. E., heat-

exchanging elements, (P.), B., 576. Short, C. E. See Dow Chem. Co. Short, C. R., and Gen. Motors Corp.,

[bearing metal] structure made from comminuted materials, (P.), B., 1047. Koehring, R. P., and Gen. Motors Corp., powdered iron and zinc alloy, (P.), B., 1047.

Short, F., and Chem. Machinery Corp., mercury-vapour heating apparatus, (P.), B., 416.

Short, J. J., diurnal variations in concentration of red blood cells and hæmoglobin, A., 354.

Short, O. A. See Akerlöf, G. Short, W. F., preparation of platinum

oxide reduction catalysts, A., 169. Stromberg, H., and Wiles, A. E., phenanthrene series. II. 7-Methoxy-1methylphonanthrene and a new route to phenanthrene, A., 720.

See also Hill, P., Jackson, Ronald W., and Sherwood, I. R.

Shorter, A. E., and Patent Gear & Metal Hardening Co., apparatus for hardening metal surfaces, (P.), B., 282.

Shoupp, W. E., Bartlett, J. H., jun., and Dunn, C. G., magnetic moment of the 23Ne puelous A 1200.

²³Na nucleus, A., 1309.

See also Krnger, P. G.

Showalter, H. A., and Ferguson, J. B., solubility of carbon dioxide in aqueous solutions containing alcohol and sugars [at 15°], A., 790.

Showers, L., Kutehka, K. G., and Pitts-burgh Plate Glass Co., glass-melting furnace, (P.), B., 595.

Shreve, F., and Turnage, W. V., establishment of moisture equilibrium in soil,

Shrewsbury, C. H. See Kraybill, H. R. Shrewsbury, C. L. See Withrow, R. B. Shrikhande, J. G., production of mucus

during decomposition of plant materials. III. Effect of partly aërobic and anaërobic conditions, A., 1569. Shriner, R. L., and Todd, H. R., 5:5-di-

methyl-1:3-hexanedione (5:5-dimethyldihydroresorcinol), A., 471.

See also Dale, C., Damschroeder, R. E., Fessler, W. A., Sutherland, H., and Thurston, J. T.

Shrinivasan, M., ascorbic acid oxidase from drumstick, Moringa pterygosperma, A., 893.

Shrivastava, D. L. See Linton, R. W.

Shrum, G. H., and How, T. G., spectroscopic determination of vitamin-A con-

tent of pilchard oil, B., 242.

Shternov, V. A. See Klarmann, E.

Shubin, E. P., diphenyl and its application in secondary superheating of steam,

Shubin, S., application of the Dirac matrix method to the theory of metals, A.,

Shuey, R. C., varnish-blending graph, B., 160. One hundred per cent. phenolic [resins], B., 943.

See also Turkington, V. H.
Shukov, I. I., and Jurshenko, A. I.,
transport numbers of ions through membranes, as a characteristic of their electro-osmotic properties.

and Karpova, I. F., electrochemistry of aqueous glycerol and aqueous glycol solutions. I., A., 938.

Komarov, V. A., and Sibiriakova, G. N., physicochemical investigations of sodium butadiene polymerides. IV. Action of oxygen and light, B.,

Simchovitsch, F. M., Talmud, S. L., and Nikolskaja, V. P., fractionation of sodium-butadiene polymeride, B.,

See also Grigorov, O. N.

Shukova, A., and Sovalova, A., causes of chalking in titanium-white, B., 29. Effect of conditions of preparation of titanium dioxide on its properties as a paint pigment, B., 751.
Shulz, V. N., use of nitrous gases for

intensive manufacture of sulphuric acid,

B., 737.

Shumacker, H. B., jun., and Lamont, A., lack of effect of theelin on somatogenic, thyrotropic, and adrenotropic activity of pituitary, A., 901. Shumkov, B. P. Sec Pshenichni, A. M.

Shur, J., and Sidorov, S., magnetic sus-ceptibility of vapours of some organic substances, A., 417.

Shuravley, D. I., effect of adsorbed layers on dielectric constant of a disperse

system, A., 934.

Shusé, V. P., mechanism of action of solid rectifiers, A., 182.

Shutt, F. T., nitrogen content of wheat as affected by seasonal conditions, B., 115. Shutt, G. R. See Kenyon, J.

Shvareva, E. E. See Sementschenko, V. K.

Sibgatullin, A.K., determination of camphor in smokeless powders by interfacial tension of its solutions, B., 253.

Sibi, M. See Slatineanu, A.

Sibiriakova, G. N. Sec Shukov, I. I. Sibirsky, IV., determination of moisture in soils by the carbide method, B., 245. Sibley, R. L., and Rubber Service Labs. Co., vulcanisation of rubber, (P.), B., 465. Rubber composition and method of preserving rubber, (P.), B., 705. Disinfecting and insecticidal agent, (P.), B., 709. Composition for use in forming plastic materials, (P.), B., 752. Ageresisting vulcanised rubber, (P.), B., 804. Coating compositions, (P.), B., 1167.

Sickle, E. B. See Ware, W. C.

Sickman, D. V., decomposition of ethylene oxide, A., 802.

and Rice, O. K., decomposition of azomethane. III. Effect of inert gases, A., 1344.

See also Rice, O. K., and Zanetti, J. E.

Sicnasi, B. See Olmer, J.

Sidappa, G. S., and Subrahmanian, V., rôle of organic matter in plant nutrition. IX. Oxidation of organic matter in the soil and plant assimilation, B., 115. Siday, R. E. See Naidu, R.

Siddiqui, R. H. See Siddiqui, S.

Siddiqui, S., conessine series. I. Isomerisation of conessine and its nor-bases, A., 350. Alkaloids of Holarrhena antidysenterica. IV. Occurrence of two further new bases in the bark of Indian Holarrhena and relationship to conessine and holarrhimine, A., 870, and Ahmed, Z., alkaloids from seeds of

Cassis absus, Linn., A., 350.

and Siddiqui, R. H., alkaloids of Holar-rhena antidysenterica. V. Holarrhimine, A., 870.

Sideri, D. I., soil swelling. I. Swelling in water considered in connexion with the problem of soil structure. II. Swelling in solutions of electrolytes; microscopic and X-ray investigations, B., 421, 610.

Sidersky, D., alcoholic fermentation of saccharine materials, B., 214. Course of nitrogen in beet sugar manufacture,

B., 1172.

Sidery, A. J., and Evans, B., influence of salt-bath heat treatment on corrosionresistance of duralumin sheet, B., 996. See also Willstrop, J. W.

Sidgwick, N. V., structural chemistry, 'A., 701. and Springall, H. D., dipole moments and the fixation of aromatic double links: bromohydrindenes and bromo-

tetralins, A., 1497. Sidorkina, A. P. See Tischtschenko, V. E. Sidorov, S. See Shur, J.

Sidorov, V. A. See Babitscheva, V. N. Sidorova, N. G. See Tsukervanik, I.

Siebdrat. See Gerth, G. Siebel, E., deformation conditions during

wire-drawing, B., 151.
and Vieregge, H. F., dependence of yield point [of steel] on stress distribution and material, B., 597.

and Weber, E., stresses and flow of material during tube-drawing, B., 151. See also Kehl, B.

Siebel, F. P., brewing process and

apparatus, (P.), B., 215.
Siebenberg, W., and Hubbard, W. S.,
tea-seed oil: test for its detection in olive oil, B., 1053. Determination of iron in beer, B., 1064.

Siebeneck, H., method for determining the colour of mineral oils and its use in the factory and laboratory, B., 1138.

Siebenmann, C., refractometric study of diphtheria toxin, A., 248.

Sieber, E., histochemical detection of lead in bones, A., 878.

Sieber, G. See Hüttig, G. F.

Sieber, R., [chemical] pulpwood, B., 230.

Siebert, C. See Cohn, H.Siebert, W. W., and Seffert, H., blood-groups and -radiation, A., 1531. Detection of mitogenetic rays with the help of a physical differential method, A., 1548.

Biological detection, A., 1548. Siebertz, K., inert gas-mcrcury vapour lamps. II., A., 1169.

Siebke, H., malignant tumours of the female genital organs as sources of hormones, A., 762.

Siecke, H. See Kohlschütter, H. W. Siecke, W., manufacture of sulphurio acid from hydrogen sulphide, B., 367. Contact or lead-chamber process? B., 883.

Siede, B., glass water-stills, A., 46.
Siedel, IV., constitution of bile pigment.
XIV. Synthesis of glaucobilins; urobilin and mesobiliviolin, A., 86.

and Meier, E., synthesis of urobilin (urobilin-IXa) and its isomerides urobilin-IIIa and -XIIIa, A., 1270.

Siedentopf, K., chlorinated rubber as a varnish raw material, B., 847. Sieder, E. N., and Foster Wheeler Corp.,

heat exchanger, (P.), B., 721.

Sieg, L. See Gruner, E.

Siegel, A., corrosion-resistance of condenser tubes of various alloys in relation to Brinell hardness, B., 374.

and Krebs Pigment & Color Corp., organic colouring materials comprising azo-compounds and an oxidised rosin, (P.), B., 1007. Organic colouring materials comprising azo-compounds and a nitro-rosin, (P.), B., 1007. Organic colouring materials comprising azo-compounds and a chlorinated rosin, (P.), B., 1007. Organic colouring materials comprising azo-compounds and an arylated rosin, (P.), B., 1007.

Secalso Allen, E. R., Erskine, A. M., Headley, A., and Krebs Pigment & Color Corp. Siegel, G. See Kochs.

Siegel, H., dephosphorisation of steel in coreless induction furnace with alkaline slags, B., 1209.

Siegel, H. See Gettler, A. O.

Siegel, J., and Silvan, A. M., [preparing a] colloidal sterol dispersion system in water, (P.), B., 715.

Siegel, O., handling stall manure under farm conditions, B., 563.

Siegel, S., and Quimby, S. L., variation of Young's modulus with magnetisation and temperature in nickel, A., 785.

Siegener Akt.-Ges. für Eisenkonstruktion, Bruckenbau & Verkinkerei. See Ludewig, F

Sieger, G. N., and Mallory & Co., Inc., P. R., hard metallic composition and contacts thereof, (P.), B., 505. See also Taylor, C.

Siegert, A., magnetic behaviour of alums of the iron group, A., 417.

Siegfried, H., mineral composition of wort, B., 565.

Siegle & Co., G.m.b.H., G., and König, Wilhelm, ammonium cyanide, (P.), B., 494. Extraction of noble metals by leaching out with cyanide, (P.), B., 505. Siegler, E. H. See Smith, L. E.

Siegrist, B., Wakker, C. H., and Briner, E., chemical action of electric discharges. VIII. Production of nitric oxide by the

electric are at different frequencies, A., 571. See also Briner, E.

Siehr, A., mechanical properties of foams. I., A., 1459.

See also Ostwald, Wolfgang. Siehrs, A. E. See Miller, C. O. Sieling, D. H. See Clark, N. A. Siemann, J. C. See Leach, L. L.

Siemeister, W., quantitative spectral analysis, detection [and determination] of vanadium in steel, and investigation of minerals from the Dreiser Weiher (Eifel) and the Finkenberg, near Beuel-on-Rhine, A., 814. Siemens, K. H. See Wilhelmj, A.

Siemens & Halske Akt.-Ges., furnaces, (P.), B., 107. Coreless induction furnace, (P.), B., 156. Measurement of quantities of heat, (P.), B., 175. Induction furnace with an open iron yoke, (P.), B., 202. Electrolytic condensers, (P.), B., 203, 284. [" Matting" the surface of] bodies formed of polystyrol or mixtures thereof with other sub-stances, (P.), B., 289. Apparatus for measuring magnetic properties, (P.), B., 333. [Copper-nickel-iron] ferro-magnetic alloys, (P.), B., 504. In-duction furnaces [for refining metals], (P.), B., 506. Galvanic coatings on aluminium and its alloys, (P.), B., 554. Coatings of fluorine compounds on light metals and their alloys, (P.), B., 554. Apparatus for electrolytic decomposition of water, (P.), B., 605. Protective circuit arrangements for clectric-are furnaces, (P.), B., 748. Pig iron, (P.), B., 936. Production of porous oxide layers on aluminium and its alloys for photographic purposes, (P.), B., 938. Electric-discharge devices [highly-emissive cathodes], (P.), B., 939. Production of characters, drawings, patterns, or other representations on aluminium and its alloys, (P.), B., 1049.

See also Kohl, Hans, Kroll, IV., and Maier, K.

Siemens-Lurgi-Cottrell-Elektrofilter

Ges.m.b.H. für Forschung & Patentverwertung, apparatus for electrical precipitation of suspended particles from gases, (P.), B., 66. Recovery of sulphur from gases containing sulphur dioxide, (P.), B., 542. Apparatus for electrical precipitation of suspended particles from gaseous fluids, (P.), B., 605. Electro-filtration of air in rooms, (P.), B., 1238.

Siemens-Planiawerke Akt.-Ges. für Kohlefabrikate, current-supply contacts for electrodes of electric furnaces, (P.), B., 1213.

Siemens-Schuckertwerke Akt.-Ges., threads or yarns formed of polymerisation products etc., (P.), B., 269. [Mercury] metal-vapour current rectifiers, (P.), B., 333. Lead-tellurium alloys, (P.), B., 553. Devices for inserting granular insulating masses into electric tubular heaters, (P.), B., 647. Production of hollow moulded articles [tubes] from polystyrol, (P.), B., 655. Waterproof rubber particularly suited for electric cable insulation, (P.), B., 656.

See also Heinrich, R., and Nesselmann, K.

Siemiaszko, A. See Hlasko, M.

Sierp, F., fat recovery in sewage practice, B., 1182.

Sierra, F. See Del Campo, A. Sievers, J. F. See Meyer, K. H. Sievers, O., so-called "blood-group

enzyme" content of saliva, A., 377.

Sievert, C., effect of the fat-metabolism hormone of the anterior pituitary on ketone excretion by rats under experimental conditions, A., 1157.

Sievert, G. E., lead borate, (P.), B., 932. Sieverts, A., and Brüning, H., electrical resistance of tantalum wires charged

with hydrogen, A., 18. and Hagen, H., electrical resistance of wires of palladium-silver and palladium-gold alloys charged with hydro-

gen, A., 23. and Zapf, G., solubility of deuterium and hydrogen in solid palladium, A., 25. Molybdenum and nitrogen, A., 1477.

Sifferd, R. H., and Anderson, R. J., occurrence of sterols in bacteria, A.,

Siga, K., and Plumley, H. J., ultra-violet absorption spectrum of hydrogen fluoride, A., 1443.

Sigetomi, S. See Abe, S.

Sigmon, H. W. See Bigelow, L. A.

Sigmond, A. A. J. von, establishment of dynamic soil types on a chemical basis,

Signaigo, F. K., and Adkins, H., reactions of hydrogen with derivatives of pyrrole, A., 861. Synthesis of dl-proline from pyrrole, A., 1121.

Signer, R., mol. wt. of polystyrenes and shape of the molecules in solutions, A., 276. Streaming double refraction of high-molecular substances. IV. Polystyrenes with different degrees of branching, A., 1447.

Sigrist, W., resonance phenomena in ionised gases, A., 770.

Sigwalt, R. See Woog, P.

Sigwart, K., measurements of viscosity of water and water vapour up to the critical region, A., 1060.

Sihvonen, V., reaction mechanism at a graphito anode, A., 36. Theory of combustion of graphite. IV., A., 170. Influence of carbon monoxide, adsorbed by a platinum electrode, on the current-potential relations of the electrical discharge in oxygen, A., 1039. Mechanism of oxidation of carbon, A., 1217. Formation of watergas from graphite, B., 914.

and Näsänen, R., control experiments on graphite oxidation by high-tension alternating current, A., 572

and Pylkkänen, M., nature of oxidising graphite anode and comparative electrolysis of d- and meso-tartaric acid in sodium hydroxide, A., 54.

and Veijola, P., analysis of magnetogalvanic effect, A., 1460.

and Vohlonen, K., electrolytic oxidation of graphite in fused alkali, A., 1213.

Siitonen, \mathcal{T} . A. See Palomaa, M. H. Sikov, V. See Badilkes, S.

Siksna, R., fluorescence spectra of antimony vapour excited by cadmium, zinc, and magnesium sparks, A., 1040.

Silberberger, R., surface-sizing of paper with animal glue, (P.), B., 589.

Silbereisen, K., carbohydrates of yeast, A., 1421. Determination of specific gravity and of volume of yeast cells, B., 1174.

See also Stockhausen, F.

Silberfarb, M. See Levina, S. Silberg, A., condensation of aromatic formamido-derivatives with pyruvic acid, A., 1520.

See also Secareanu, S., and Tanasescu,

Silberman, A. See Kapustinski, A. F. Silbermintz, V. A., occurrence of vanadium

in fossil coals, A., 51. and Rusanov, A. K., occurrence of beryllium in fossil coals, A., 959.

Silberstein, A., crystal parameters of copper ammonium bromide, A., 143. Structure of cupric ammonium bromide, A., 669.

Silberstein, L. See Bertrand, G. Silbert, F. C., and Kirner, W. R., microdetermination of carbon and hydrogen in compounds containing arsenic, antimony, tin, bismuth, and phosphorus, A., 1397.

Silbert, S. See Friedlander, M.

Silesia Verein Chemischer Fabriken, production of disulphides from 2-mercaptobenzthiazole and its homologues and substitution products, (P.), B., 976.

Silika- & Schamotte-Fabrik Martin & Pagensteeher Akt.-Ges., spalling-resistant magnesia bricks or masses, (P.), B., 791. Silin, N. F., and Nikoliuk, B. A., preparation of p-aminophenol by reduction

of p-nitrophenol by iron turnings in presence of sodium chloride, B., 440.

Silin, P. M., and Silina, Z. A., characteristic effects of defecation and first carbonat-

ation [of sugar juice], B., 39. Silina, Z. A. See Silin, P. M. Silker, R. E. See Raiford, L. C.

Sille, G., chemical transformations in ternary system copper-sulphur-oxygen, A., 798.

Silliman, H. F., and Amer. Brass Co., [nickel-beryllium-copper] alloy, (P.),

Silman, H., soldering of aluminium, B., 24. Control of Cheddar cheese production, B., 520. Characteristics of insecticidal petroleum emulsions, B., 563.

Silmo Chemical Co., Inc. See Loomis, H.P. Silsbee, F. B., Brickwedde, F. G., and Scott, R. B., new phenomenon in the superconducting transition of tin and tantalum, A., 1329. Silva, L. B. See Pierucci, M.

Silvan, A. M. Seo Siegel, I.

Silverman, A. See Blau, H. H.

Silverman, L., gravimetric determination of selenium in alloy steel; copper chloride-perchloric acid method, B., 548. Determination of manganese in 18:8 corrosion-resisting steel, B., 1098.

Silvester, W. A., and Wynne, W. P., toluene series. V. Sulphinic and sulphonic acids of the mono- and dichlorotoluenes, A., 832.

Silvette, H., and Britton, S. W., carbohydrate and electrolyte changes in the opossum and marmot following adrenal-

ectomy, A., 1425.

Sim, W. S. See Percival, E. G. V. Simard, G. L., and Warren, B. E., X-ray study of amorphous rubber, A., 553. Simehovitsch, F. M. See Shukov, I. I.

Simek, B. G., contraction of brown coal on drying, B., 863. Relative transparency of coal constituents to X-rays, B., 1025. Simultaneous treatment of brown-coal producer tar and Czechoslovakian crude petroleum, B., 1027. Fine structure of tar pitch, B., 1187.

and Coufalik, F., coking properties of the petrographic constituents of coal, B., 818. Dennstedt method for ultimate analysis of coke, B., 864. Determination of the strength of coke, B., 1026.

Coufalik, F., and Beránek, Z., distillation tests [on coal], B., 772.

and Kassler, R., surface reactivity of wood charcoal, B., 1075.

and Ludmila, J., contribution of the humic constituents of coal to the products of distillation, B., 1026.

Ludmila, J., and Stanclova, B., determination of total sulphur in coal and

coke, B., 1074. and Pulkrabek, J., examination of coal structure by means of X-rays, B., 770. Pulkrabek, J., and Coufalik, F., strengths

of Czechoslovakian coals, B., 1174. and Stadler, A., deuterium content of coals, B., 770.

Simerl, L. E., and Davis, D. S., determination of alum concentrations, B.,

Simha, R., viscosity of suspensions and solutions. VII. Viscosity of sphere suspensions, A., 1066. See also Guth, E.

Simmert, H. U., diuretic action of organic mercury compounds, A., 1020.

Simmons, A. C., and Keystone Steel & Wire Co., coating iron or steel articles [with tin], (P.), B., 1047.

Simmons, J. P., Freimuth, H., and Russell, H., systems lithium chloride-water-ethyl alcohol and lithium bromidewater-ethyl alcohol, A., 1340.

Simmons, N. L., and Beckman, A. O., mercury-photosensitised decomposition of arsine, A., 572.

Simmons, R. E., continuous recording of the p_n of [sugar-factory] mill juices, B., 1172.

Simmons, S. W., bactericidal principle in excretions of surgical maggots, which destroys important etiological agents of pyogenic infections, A., 115.

Simmons, W. A., use of ferric chloride in sewage treatment, B., 862.

Simmons, W. C., genesis of the Mivirasando tin ores, A., 449.

Simmons, W. H., [detection of] petroleum

in cassia oil, B., 44. Simms, C. H. See Gen. Electric Co.

Simms, H. S., effects of physiological agents on adult tissues in vitro, A., 1021.

Simola, P. E., relation of the vitamin-B complex to metabolism of keto-acids, A., 646. Colour reaction for the urine of pregnancy, A., 1537. Influence of the vitamin-B complex on keto-acid metabolism, A., 1566.

and Kalaja, T., effect of vitamin-A on fat and lipin metabolism, A., 389.

and Mäntylä, V., Knoop's histidine reaction in urine, A., 625.

Simomin, P., and Brion, J., variable action of cobra venoms standardised for therapeutic use, A., 376.

Simomura, A., and Simomura, T., caking coals in Karafuto (Southern Sakhalin), B., 480.

Simomura, T. See Simomura, A.

Simon, A., benzol recovery by the active charcoal process at Charlottenburg gasworks, B., 725.

Simon, Alexander, oxygen and nitrogen content of the urine, A., 625. Action of hormones and of maintenance in the dark on the content of pressor and oxytocic factors in the posterior pituitary gland, A., 1563.

and Zemplen, B., blood-ammo-nitrogen in health and disease, A., 93.

See also Bovet, D.

Simon, Arthur, and Feher, F., Raman spectrum of dioxan, A., 269. Modification of the Raman spectrum of dioxan by dissolved materials, A., 1319.

and Landgraf, A., oxides. VII. Thermal dissociation of γ-Fc₂O₃, A., 576. and Reetz, T., titration of hydrogen

peroxide in presence of oxalic acid (alkali oxalates), A., 577, 950. Simon, A. F. J. See Spath, E.

Simon, F. See Kürti, N., and Megaw, H. D.

Simon, H. See Kolbach, P.

Simon, I., [physiological] action of preparations of bromine, A., 372. Pharmacology of tetraethylammonium phosphate, A., 373. Cause of the toxicity of methyl alcohol, A., 377. Pharmacological action of Erythrina corallodendron, A., 634. Speed of adsorption of medicaments in relation to the osmotic pressures of their solutions, A., 1021.

Simon, J. F. See Oekerblad, N. F. Simon, K. C. See Du Pont de Nemours & Co., E. I.

Simon, M. See Colin, H. Simon, W. See Standard-I. G. Co.

Simon, Ltd., H., and Watts, G., sieving machines, (P.), B., 80.

and Welch, O., separators for grain and other materials, (P.), B., 1135.

Simon-Carves, Ltd., and Adams, V. H., washer boxes for coal, (P.), B., 1078.

and Preston, J. T. E., improvement of quality of coke in coke ovens, (P.), B., 357.

Simonart, A., and Simonart, E. F., acetylcholine and the normal striped muscle of mammals, A., 516.

Simonart, E. F. See Simonart, A.

Simoncini, E. See Casaburi, V. Simond, A. E. See Lowe, L. W.

Simonin, G., applications of rubber in silk dyeing, B., 540.

Simonnet, H. See Guittonneau, G. Simonova, A. M. See Ismailski, V. A. Simonova, V. N. See Teletov, I. S. Simonovits, S., and Balassa, G., optical

activity of hæmoglobin and of derivatives: sulphur content, A., 92. Optical activity of horse's globinhæmochromogen and of hamoglobin dissolved in 0.25Nsodium hydroxide (globin+hæmatin), with special reference to the sulphur contents, A., 221.

Simons, A., measurement of low relative

humidities, A., 306.
Simons, J. K. See Wagner, E. C.
Simons, L., Raman effect and molecular structure, A., 1319. Simons, P. See Deut. Kunstleder-Werke

Wolfgang G.m.b.H.

Simonsen, J. L. See Bradfield, A. E., Gratton, G., Lewis, J. R., Phillips, E. O.,

and Ramage, G. R.
Simonson, R. R., piedmontite from Los
Angeles County, California, A., 49.

Simplex Wire & Cable Co. Sec Boggs, C. R.

Simpson, A. G., determining "yellowness" and "grade" of wheat flours, B., 215. Dough fermentation: method for counting yeast cells in a fermenting [wheatflour] dough, B., 344. Gas production in dough fermentation, B., 519.

Simpson, A. W., and Speller, F. N., corrosion-resistance of ancient iron, B., 1043.

Simpson, (Miss) D. M. See Lowry, T. M.

Simpson, G. L. See Moore, W. E. Simpson, I. A., f.p. of milk for detecting

added water, B., 1123. Carotene content of Malayan palm oil, B., 1164. Simpson, M. E. See Evans, H. M.

Simpson, S. L., secondary pellagra, A., 884.

De Fremery, P., and Macbeth, A., presence of an excess of "male" (comb-growth and prostate-stimulating) hormone in virilism and pseudohermaphroditism, A., 1564.

Simpson, T. H. See Ingraham, D. C. Sims, C. E., preparation of steel to avoid porosity in castings, B., 322. Sims, W. F., Cloer, V. U., and Panhandle

Refining Co., apparatus for treatment of

hydrocarbon oils, (P.), B., 262. Sinclair, D., and Webb, H. W., lifetimes of potassium doublets $\lambda 4047-4$ and λ 3447—6, A., 1309.

Sinclair, R. G., blood-phospholipin as a transport mechanism, A., 1283.

Sinclair, W. B., and Bartholomew, E. T., determination of pentoses as furfuraldehyde in citrus fruits, A., 1166.

Sinclair, W. E., slurry-Mafeking limestone deposits, with special reference to their economical and commercial possibilities, B., 317.

Sinclair Refining Co., dewaxing of [hydrocarbon] oils, (P.), B., 86.
See also Gardner, R. H., Gulette, W. S.,

Isom, E. W., McKay, C. R., Mendius, W., Pelzer, H. L., Szayna, A., and Thacker, R. B., jun.

Sindram, I., effect of cortin on sensitivity to narcotics, A., 526. Sinelnikov, K. D. See Borissov, M. D.,

Kara, I., and Petuhov, V.

Singalovski, N. S., and Bogomilskaja, E. P., recovery of bismuth and other valuable elements from electrolytic lead slimes,

and Portschunov, P. M., determination of tungsten in wolframite by chlorination, B., 413.

Singer, A., building material, (P.), B., 1209. Singer, A. See Feigl, F.

Singer, E., action of chemotherapeutics in spirochæte and protozoan infections, A., 375. Action of chemotherapeutics on the trypanosome cell, A., 897.

Singer, F., barium aluminium silicates as refractories and their use for different technical purposes, B., 1094.

glasses and lead-barium glasses, B., 594. Singer, G., absorption of X-rays by lead

See also Taylor, L. S.

Singer, Gustav. See Wessely, F.
Singer, S. C., jun., Wilson, R. R., and
Brown, G. G., design of fractionating
columns. III. Plate efficiency and number of plates for petroleum columns,

Singh, A., and Peacock, D. H., reactivity of halogen compounds. II. Rates of reaction and energies of activation of 1:2:4-chlorodinitrobenzene with aromatic primary amines, A., 802.

Singh, Balwant, and Krishen, R., parachors and chemical constitution. VI. Quadrivalent tellurium compounds, A., 271.

and Sarup, A., parachor and chemical constitution; structure of nitrobenzyldialkylamines, A., 552.

Singh, Bhagat. See Noyes, W. A. Singh, B. K., and Mahanti, I., physical identity of enantiomers. I. Rotatory dispersion of l-borneol, enantiomeric

camphors, camphoric acids, sodium camphorates, camphoric anhydrides, and camphorimides, A., 141.

and Prasad, S., physical identity of enantiomers. II. (a) Rotatory dispersion of d., l., and dl-oximino-camphor and thoir sodium derivatives; (b) differences in physiological action of d-, l-, and dl-forms of sodio-oximino camphor, A., 1258.

Singh, \vec{B} . N., and Kapoor, G. P., plant growth in relation to partial pressures

of oxygen, A., 767.
and Kumar, K., influence of partial
pressure of carbon dioxide on photosynthetic efficiency, A., 122. Influence of season on photosynthesis in the tropics, A., 257.

and Mathur, P. B., manometric device for gas analysis, A., 259. Utility of broken automatic pipettes, A., 305. Constant-volume gas analysis apparatus, A., 446. Manometer for comparative study of physiological processes, A., 535. Precision apparatus for mixing gases in various proportions, A., 697. Measurement of respiratory exchange in plants, A., 1433. Respiration of ripening tomatoes, A., 1433. Carbonic acid determinations in soils, B., 383. Dissolved carbon dioxide and ripening of tomatoes, B., 617. Determination of carbonic acid in soils, B., 851.

Singh, H. See Linton, R. W. Singh, I., intravenous injection of oxygen with the animal under ordinary and

increased atmospheric pressure, A.,

Singh, J., and Hussain, A., occurrence of Azotobacter at high temperatures, A., 113. Singh, Mahan, rotatory power of substituted camphoranilic acids, A., 1383. and Singh, Manohar, optical activity and chemical constitution. II. Optically active acids and bases, A., 856.

Singh, Manohar. See Singh, Mahan.

Singh, S. G. See Singh, S. L.

Singh, S. L., and Singh, S. G., viability of some common winter vegetable seeds, B., 164.

Singleton, E. See Burkhardt, G. N.
Singleton, J. T., and Amer. Agricultural Chem. Co., [phosphatic] mineral concentration, (P.), B., 145.
Singleton, W. See Goodlass Wall & Lead

Industries.

Singmaster, J. A., artificial silk filament [of reduced lustre], (P.), B., 588.

Sinha, H. K., local anaesthetic actions of certain pyrazoline and quinoline compounds, A., 1146. Local anæsthetic activity of quinoline compounds, A., 1552.

Sinha, P. C. See Ray, R. C.

Sinnatt, F. S., utilisation of coal, B., 580. Sinness, L. S., and Reseveare, W. E., dispersion of sound in oxygen, A., 1057. Sinton, J. N. See Ghosh, B. N.

Siova, A. See Rapoport, I. Sipple, H. L., control of concentration in production of tomato pulp and paste, B., 713.

Sircar, A. C., and Sen, S. C., acenaphthene

series. II., A., 1393.

Sirian Lamp Co. See Braselton, C. H., Davies, H. R., Harding, R., jun., and

Ruben, S. Sirkar, S. C., origin of the wing accompanying the Rayleigh line in liquids, A., 9. Wing accompanying the Rayleigh line in liquid mixtures. I., A., 407. Nature of intermolecular oscillations in some organic crystals, A., 777. Raman spectra of carbon disulphide, benzene, chloroform, and carbon tetrachloride in different states and at different temperatures, A., 923.

and Gupta, J., Raman spectrum of solid hydrogen sulphide at low temperature,

A., 922.

and Mookerjee, B. K., wing accompanying the Rayleigh line in liquid mixtures. II., A., 1444.

Sirkin, Z. N., and Pugatschev, E. E., corrosion of metals during chlorination of toluene, B., 536.

Sirks, H. A., indications for distinguishing milk powder from butter powder, B.,

Siroeschkina, M. See Basslavskaja, S. Siromiatnikov, F. V., mineralogy of asbestos; ishkyldite, a new structural variety of chrysotile, A., 584. Mineral structure of the Ivdel (Ural) bauxite, A., 585.

Sirot, A., organic binders for roads, B., 1042.

Sirovich, G., and Vanzetti, G., composition of ordinary cast iron for boilers, B., 1097. Sisido, K., synthesis of glucosides. I.— III., A., 1234.

Siskin, M. See Kondrateev, V. Siskov, K. I., adsorption of barium hydroxide by humic acids, A., 1195.

and Uschakova, A. A., composition of phenol extracts of mineral coal, B.,

See also Stadnikov, G. L.

Sisson, L. B. See Mellor, H. B.

Sisson, W. A., X-ray studies of crystallite orientation in cellulose fibres. II. Synthetic fibres from bacterial cellulose membranes, A., 670.

Clark, G. L., and Parker, E. A., absorption edges in the X-rays patterns of native and mercerised cellulose, A.,

Sitharaman, M. V. See Dey, B. B. Sitnik, Z. P. See Kiprianov, A. I.

Sitsch, E. D. See Kiprianov, A. I. Sitz, G., and Endell, K., temperatureviscosity relations of lead slags, B.,

Sivaswamy, T. G. See Damodaran, M. Sivertz, V., Naylor, W. H., and Tartar, H. V., effect of surface tension and electrical potential on the stability of mercury emulsions, A., 795.

Sivochin, A. I. See Vozdvischenski, G. S. Sivova, A. N. See Karshev, V. I.

Siwe, S. A., elimination of organic acids in urine during childhood and relation of acids to basal metabolism in adults, A., 228. Behaviour of vitamin-C in Addison's disease, A., 1161.

Sjenin. See under Zenin. Sjöberg, B. See Smith, L.

Sjöberg, K. See Odén, S. Sjoerdsma, W., unimolecular layers of

chlorophyll, A., 1335.
Sjöström, G., thermochemistry of chlorosubstituted benzoquinones and quinols,

Sjollema, B., tetany in calves, A., 506. Sodium requirement of chicks: results of an almost sodium-free diet, A., 632. and Barbas, W. C., antirachitic action of irradiated cholesterol for chicks, A., 647.

Sjostrom, O. A., microscopy of starches and their modifications, B., 295.Skaggs, L. S., and Dufford, R. T., index of

refraction of water and paraffin at high frequencies, A., 1051.

Skajaa, T., apparatus for separating dust, etc., from gases or vapours, (P.), B.,

Skanavi-Grigorieva, M. S., and Schternin, E. B., concentrated solutions. I. Conductivity, viscosity, and density of fused NH₄Ag(NO₃)₂ and of its concentrated solutions, A., 22.

Skaperdas, G., effect of electrolytes on freeness [of groundwood pulp], B., 94.

Skapski, A. See Chyżewski, E. Skartschenko, K. J. See Izbekov, V. A. Skarżyński, B. See Marchlewski, L.

Skau, E. L., and McCulloch, R., purification and physical properties of organic compounds. XII. Lower aliphatic bromides, A., 278.

and Rowe, L. F., purification and physical properties of organic compounds. X. F. p. diagram for the system acetanilide-propionanilide, A., 290.

Skeen, J. W. See Partington, J. R. Skell, P. See Lehrman, A.

Skelly, J. F. See Hope, H. B.

Skelton, A., power: a raw material for chemical industry, B., 671. Skelton, W. E. See Texas Co.

Rayon Corporation. Skenandoa Gordon, B., jun.

SKF Industries, Inc. See Larsson, J. Skibbe, W. See Gottlebe, P.

Skinner, A. J. See South Metropolitan Gas Co.

Skinner, D. G., and Graham, J. I., composition and fineness of powdered materials used for stone-dusting in coal mines, B., 1174.

Skinner, H. W. B., and Johnston, J. E., fine structure of the L_{23} absorption edge of magnesium metal, A., 770.

Skinner, L. B., protection of metallic conduits exposed to high temperatures, (P.), B., 416.

Skinner & Sherman, Inc. See James, C. Skirball, J. J., and Thurman, F. M., ocular reactions duo to arsphenamine, A., 891.

Skirstimonski, A. O., Minkin, B., Viliamovitsch, E., Sokolov, S., and Sternzat, N., application of electrolytic litharge, B.,

Skjulstad, T. See Frivold, O. E.

Sklar, H. L., and Micamold Radio Corp., electrolytic condenser, (P.), B., 156. Sklianskaja, R. M., combined action of

lead and nicotine, A., 1554.

Urieva, F. E., and Mashbitz, L. M., relative toxicity of acetone, methyl alcohol, and their mixtures. I. II. Action on white mice, A., 517.

Skljarenko, S. I., and Baranajev, M. K., azeotropic and constant evaporating mixtures, A., 280. Ratio of rates of evaporation of different liquids in moving air, A., 281. Dependence of rate of evaporation on nature of gas flowing over the surface of the evaporating liquid, A., 281.

Skobelzyn, D., and Stepanova, (Miss) E., production of positrons by β -rays, A., 400. Anomalous absorption of β -rays, A., 402. Scattering of fast β -rays, A., 540.

Skoblinskaja, S. A. Sce Issagnliantz, V. I.
Sköldkvist, H. N., presses for treating fibrous material, (P.), B., 1147.
Skoog, F., effect of X-irradiation on auxins and plant growth, A., 909.
Skorbilin, S. F., chemical-technical

dynamics of long [sugar] beet campaigns, B., 39.

Skorcheletti, V. V., and Idelichik, B. M., chemical resistance of two-phase alloys, B., 412. Effect of internal diffusion on chemical stability of [metallic] binary solid solutions, B., 413.

Skornjakova, V. F. See Kedrinski, V. V. Skotnikov, V. I., comparative quenching power of vegetable oils and other cooling agents capable of replacing such oils

during quenching, B., 414.
Skoutil, F., azorubin, a new reagent for detection of nitrates and nitrites, A., 694. Skowronski, F. J. See Universal Oil

Products Co. Skrabal, A., thermodynamic problem, A., 159. Ester hydrolysis in pure water, A., 165. Calculation of intermediate reactions in homogeneous systems, A., 684.

and Skrabal, R., dynamics of the formaldehyde-hydrogen sulphite reaction, A., 1463. Skrabal, R. See Skrabal, A.

Škramovský, S. See Dobner, A. E.

Skraup, S., and Rheinische Kampfer-Fabr. G.m.b.H., aryl ketones and phenol

[phenyl] esters, (P.), B., 444. and Strieck, E., combustion of odd-numbered fatty acids in the animal organism, A., 370.

Skrilecz, G. See Seck, W.

Skrinnikov, K. A. See Malinovski, A. E. Skrinnikova, N. P. See Brodski, A. E.

Skrodel, L., secretion of milk and fat in individual quarters of the udder, B.,

Skrowaczewska, Z., and Sueharda, E. synthesis of s-tridiphenylylbenzene and s-tri(benzylphcnyl)benzene, A., 976.

Skulskaja, L. A., preparation of straw hemicellulose by maceration without pressure, for thin wrapping, poster, and album papers, B., 634.

Skvortzov, \hat{V} . N., colorimetry of chromates at p_{II} greater than 7, A., 44. Oxidation and reduction reactions of colloidal substances. IV. Theory of structure of aggregates of colloid

particles, A., 1338.

and Schepeleva, E. S., indicator transformations of fuchsin, A., 951.

Sky, J. D. See Vickers-Armstrong, Ltd. Slack, A. D. See Eastman Kodak Co. Slack, F. G. See Lageman, R. T. Sladkova, M. V. See Dornisch, M. O. Slagh, H. R. See Dow Chem. Co.

Slanina, S. J., Hennion, G. F., and Nieuw-Iand, J. A., alkylacetylenes and their additive compounds. XI. Bromination

of alkenyl esters, A., 965.

Slater, B. R. See Hopkins, (Sir) F. G. Slater, C. S. See Middleton, H. E. Slater, I. G. See Brit. Non-Ferrous Metals

Res. Assoc.

Slater, I. W. See Woods, E.

Slater, J. C., ferromagnetism of nickel. I. II. Temperature effects, A., 671, 1055. See also Rudberg, E.

Slatineanu, A., Balteanu, I., Sibi, M., Franche, M., and Cantacuzène, L., action of sodium chloride and bicarbonate in maintenance of acid-base equi-

librium, A., 756.

Slavianov, J. N., generator for production of hydrogen chloride from chlorine,

steam, and carbon, B., 985.

Slavich, E., relations between bilirubinæmia and carbohydrate metabolism. I. Bilirubinæmia in fasting and glucosefed diabeties, A., 365.

Slavik, J. B. See Kunzl, V. Slavina, S. E., determining alcohol vapour in gases leaving scrubbers, B., 918.

Slavinski, A., conductometric method for investigation of colloidal suspensions, A., 495.

Slavinski, M. P., Alexandrov, P. I., Kukuschkin, A. I., and Chatschchoshev, M. S., nature of silicon bronzes and their use for castings, B., 994.

Sleator, W. W. Seo Barker, E. F. Slipher, V. M. See Adel, A.

Slizkovskaja, O. A. See Beskov, S. D. Sloan, A. W., and Goodrich Co., B. F., antioxidants [for rubber], (P.), B., 561, 896.

See also Semon, W. L.

Sloan, E. C., and Hawley, J. B., fibrous-bodied articles, (P.), B., 928. Preservation and protection of records, etc., (P.), B., 928.

Sloane, R. H., and Minnis, C. M., spectroscopic observation of recurrent pheno-

mena in discharge tubes, A., 3.

Slobodin, J. M., dimerisation of divinyl, A., 451. Determination of diallyl and dipropenyl in their mixtures by the hydrogenation method, A., 702. Isomerisation of cyclic hydrocarbons with isolated systems of double linkings, A., 1098.

See also Krause, V. P. Slominski, L. I. See Karpuchin, P. P. Slon, M. See Urbański, T.

Slonaker, J. R., effect of different percentages of protein in the diet on virgin rats. A., 509.

Sloof, G., cyclic ethers by condensation of pyrocatechol with aldehydes and ketones, A., 838.

Slooff, A. See Meyer, G.

Slotin, L. See Fergusson, W. C.

Slotta, K. II., and Müller, Johannes, degradation of mescaline and similar substances in the body, A., 513.

and Nold, A. E., 4-hydroxy-3-phenyl-

benzoic acid, A., 203.

and Soremba, K. H., iodination and nitration of p-phenoxybenzaldehyde,

A., 74. Synthetic substances resembling thyroxine from diphenyl ether, A.,

Sluckaja, M. M. See Filippova, N. S., and Scherschever, J. M.

Slutzkin, A. A., use of the magnetic field in formation of ion-electron boams, A.,

Slvassen, H. zur, formation reactions and phase equilibria in clinkers containing magnesia, B., 836.

Sly, C. See Du Pont de Nemours & Co., E. I.

Smadel, J. E. See Thurston, E. W. Small, L., Fitch, H. M., and Smith, W. E., addition of organomagnesium halides to ψ -codeine types. II. Preparation of nuclear alkylated morphine derivatives, A., 1277.

and Yuen, K. C., addition of organomagnesium halides to ψ -codeine types. I. Deoxycodoine-C, A., 490.

See also Faris, B. F., and Lutz, R. E. Small, P. A., and Wolfenden, J. H., structure of the formate ion, A., 780.

Small, T., potato blight (Phytophthora infestans) investigations in Jersey; prevention of disease in export produce, B., 386.

Small & Parkes, Ltd., and Kay, A., brake

linings, (P.), B., 723. Smallfield, P. W., pasture top-dressing in the Auckland province, B., 115.

Smart, C. F. See Boegehold, A. L. Smart, H. F., growth and survival of micro-organisms at sub-freezing temperatures, A., 382.

See also Moon, H. H.
Smeaton, T. F. See Brit. Thomson-Houston Co.

Smedsrud, H. See Wiberg, E.

Smeets, C., perchlorates. IV. Ammonia derivatives of alkali perchlorates, A., 172. Smekal, A., formation of opposing potentials in solid ionic conductors, A., 139. Mechanism of electrical conduction of solid ionic conductors, A., 549. Theory of absorption spectra of insulating

crystals, A., 1176. See also Reck, IV.

Smeljanski, I. S., sulphite-cellulose lye instead of molasses [in silica bricks], B.,

Smeljanski, V.S. See Budnikov, P.P.Smellie, J. See Bryan, A. M.

Smereker, H., and Juris, K., measurement of β -radiation from radium in r-units, A., 264.

Smetana, O. See Abel, E., and Thomas &

Co., Ltd., R. Smethurst, P. C., duplicate negatives by direct reversal, B., 1019.

Smidel, O. G., treatment of metals to prevent spotting out, (P.), B., 553.

Smidovich, E. See Bljacher, J. Smidth, L., and Aldur Corp., moulding of urea-formaldehyde condensation pro-

ducts, (P.), B., 896. Smidth & Co., F. L. See Nielsen, Niels. Smiles, S. See Evans, W. J., and Learmouth, E. K.

Smiley, L. D., Altick, C. D., and Turner, E. T., fibre liberation, (P.), B., SSI. Smiley, O., treatment of bitumens, (P.), B., 629.

Smirjagin, A. P., effect of beryllium on special bronzes, B., 412. Refining silicon bronzes and brasses, B., 744,

Smirnov, A. I., physiologico-biochemical principles of tobacco curing and fermentation, B., 950.

Smirnov, A. V., and Beloruchev, L. V., deep nitriding [of alloy steels], B., 105. Forming a controlled atmosphere in heat treatment furnaces, B., 410. and Masalov, N. I., axles and fixed

pivots for alarm clocks, B., 993. Smirnov, N. I., decrease of alcohol recovery during contact process [for butadiene], B., 10.

and Tiutina, A. A., absorption method for removing acetaldehyde from contact gases, B., 822.

Smirnov, V. K., separation of copper and lead from copper-lead concentrates by

flotation, B., 198. Smirnov, V. S. See Williams, W. W. Smirnova, L. G. See Charin, S. E.

Smirnova, M. I., and Lavrova, M. N., variability in composition of different varieties of soya beans, B., 522. and Serbina, G. N., determination of

alkaloids, A., 620.
Smirnova, Z. L. See Martintzeva, S. S.
Smit, A. J. H., and Went, F. W., physiological analysis of growth substance, Ă., 122.

Smit, B., and Bishop, H. J., citrus mealybug [Pseudococcus citri] and its association with ants in the Eastern Province. B., 37.

Smit, J. A., velocity distribution of electrons in gas-discharges in helium, A., 917.

Smit, P., glucose, B., 757. Active charcoal in sugar refining, B., 854.

See also N. V. Octrooien Maats. " Activit." Smit, W. C., and Loon, J. van, fatty oil from the seeds of Telfaria pedata, Hook,

Smith, A. A., and Elgin, J. C., equilibrium distribution of acetic acid between isopropyl ether and water, A., 25.

Smith, A. E. W., determination of antimony in white metals, B., 64. Smith, A. F. See Clark, G. L.

Smith, A. G., rheolaveur [coal] washery, B., 481.

Smith, A. G. (Wisconsin), and Bradley, H. C., diphasic aspect of curdling of milk by rennin, A., 227.

Smith, A. H. See Clarke, M. F., Orten, J. M., Sherman, C. C., and Swanson, P. P.

Smith, A. H. R. See Henderson, V. E. Smith, A. K. See Prutton, C. F.

Smith, A. L., and Harris, M., effect of hydrogen peroxide on wool, B., 827. Lead acetate test for hydrogen peroxide-bleached wool, B., 827. Oxidation of wool, B., 827, 828.

Smith, A. M., Aspergillus niger method of examining soils, B., 851. Smith, A. R. See Baker, W.

Smith, C. A., apparatus for determining

sp. gr. of liquids, (P.), B., 401. Smith, C. C. See Du Pont de Nemours & Co., E. I., Piper, J. D., and Williams, I. Smith, C. H., reduction of methylene-blue by blood of young infants, A., 747.

Smith, C. L., Alben, A. O., and Cole, J. R., pecan-rosette control in Texas, B., 38.

Smith, C. M. See Cassil, C. C., Gooden, E. L., and Jones, H. A.

Smith, C. N., Chaney, N. K., and Nat. Carbon Co., Inc., [carbon-]brush moulding composition, (P.), B., 1111. and Nat. Carbon Co., moulding powder,

(P.), B., 111. Smith, Clayton S., Rosenfeld, S., jun., and Sacks, L. J., effect of nicotinism in the

albino rat, A., 107.

Smith, Cyril S., relation between the thermal and electrical conductivities

of copper alloys, A., 1332. and Battelle Memorial Inst., improvement of malleable iron eastings, (P.), B., 1044.

and Palmer, E. W., thermal and electrical conductivities of copper alloys, A., 1193. Copper in malleable iron, B.,

Palmer, E. W., and Amer. Brass Co., copper-iron alloy, (P.), B., 795. See also Lorig, C. H.

Smith, D. A. See Miller, C. A. Smith, D. M. See Bryant, W. M. D. Smith, D. T. See Rosenholtz, J. L.

Smith, E., spray-residue removal, B., 392. See also Haller, M. H.

Smith, E. A. C. See under Guggenheim Bros.

Smith, E. B. See De Ong, E. R. Smith, E. C., and Republic Steel Corp., steel-making process, (P.), B., 1161. Smith, E. C. W. See Lunt, R. W.

Smith, E. F., chlorinated rubber; review from 1859 to the present day, B., 69. Smith, E. J., and Continental Oil Co., re-

fining of lubricating oil, (P.), B., 137. Smith, E. K. See Edwards, D. V.

Smith, E. L., photosynthesis in relation to light and carbon dioxide, A., 1433. Smith, E. R., and Wojciechowski, M.,

differential measurement of density by means of twin pyknometers, A., 956. See also Wojciechowski, M.

Smith, E. R. B., influence of method of preparation and of cations on isoelectric point of ovalbumin, A., 623.

Smith, E. S. See Moffats, Ltd. Smith, E. Westley. See Gilman, H. Smith, Edward W., and Electric Storage

Battery Co., storage-battery plate, (P.), B., 844.

Smith, Ernest Walter. See Bywater, W. G., and Hodgson, H. H.

Smith, F. See Haworth, W. N. Smith, F. A., and Pickering, S. F., measurements of flame velocity by a modified

burner method, A., 1344.
Smith, F. B., Brown, P. E., and Millar, H. C., assimilation of phosphorus by Aspergillus niger and Cunninghamella sp., B., 755.

Brown, P. E., and Mensing, C. C., bacteriological method for measuring available phosphorus in soils, B., 34. See also Millar, H. C., and Stoutemyer,

 $V. \underline{T}.$

Smith, F. C. See Holiday, E. R. Smith, F. D. See Conover, C. Smith, F. H., check valve for wash bottles, A., 1355.

Smith, F. J., and Sharp, H. P., parallel slide rule for calculating vapour-pressure data, B., 1023.

Smith, F. L. See Egerton, A. Smith, F. M., and MacKay, E. M., effect of posterior pituitary extracts on sodium balance in health and in diabetes insipidus, A., 1563.

Smith, G. See Raistrick, H.

Smith, G. B. L., and Anzelmi, E., reduction of nitroguanidine. III. Synthesis of aminoguanidine, A., 321.

See also Kirsten, G. W., Lieber, E., and

Sabetta, V. J.
Smith, G. C. See Riddle, O.
Smith, G. F., McHard, J. A., and Olson, K. L., determination of manganese in tungsten and ferrotungsten; mixed perchloric and phosphoric acids as solvent and sodium bismuthate or potassium periodate as oxidising agent, B., 1099.

See also Getz, C. A.

Smith, G. L. See Young, M. T.
Smith, G. S., determination of small amounts of boron by means of quinalizarin, A., 42. Determination of magnesium in duralumin, B., 200.

Smith, G. van S., and Smith, O. W., determination of urinary cestrin, A., 229. Determinations of prolan and cestrin in pregnancy with special reference to late toxemia and eclampsia, A., 753. Evidence for placental origin of the excessivo prolan of late pregnancy toxamia and eclampsia, A., 1142.

Smith, G. W., and Hall Labs., Inc., non-caking metaphosphate, (P.), B., 1037.

Smith, Harris A. See Texas Co. Smith, Hilton A. See Kistiakowski, G. B.

Smith, Howard A., reactions in the solid state; initial course of subcritical isothermal diffusion reactions in austenite in an alloy steel, B., 23. Smith, H. B. See Eastman Kodak Co.

Smith, H. G., South Hill lamprophyre,

Jersey, A., 1088.

Smith, H. Grayson, and Tarr, F. G. A., superconducting galvanometer, A., 445. See also Misener, A. D.

Smith, Harold Garfield, sewer-lining materials tested for corrosion-resistance, B., 254. Smith, Herschel G. See Ayres, E.

Smith, H. H., beverage food, (P.), B., 474. See also Maynard, E.J.

Smith, H.L., jun., and Thermal Eng. Corp., moisture extraction [from permeable material], (P.), B., 399.

Smith, H. M., Grandone, P., and Rall, H. T., treatment of gaseous hydrocarbons, (P.), B., 438.

and Rall, H. T., treatment of gaseous hydrocarbons, (P.), B., 438.
See also Rall, H. T.

Smith, H. P. See Warner, E. D. Smith, H. V., Smith, M. C., and Foster, E. O., mottled enamel in the Salt River valley and the fluorine content of water supplies, B., 862. See also Smith, M. C.

Smith, H. Vernon, quick-drying finishes, B., 160.

Smith, Harry W., jun., micromanometer, A., 583.

Smith, Homer W., metabolism of the lungfish. II. Effect of feeding meat on metabolic rate, A., 368. Composition of urine in the seal, A., 881. See also Goldring, W., Kaplan, B. I., and

Shannon, J. A.

Smith, I. C. P., reflux ratio apparatus for fractionating columns, B., 303. See also Quickfit & Quartz, Ltd.

Smith, I. J., bleaching of vegetable fibres, (P.), B., 1204.

Smith, J. See Consitt, N. Smith, J. A. B. See Channon, H. J., and Parry, T. W.

Smith, J. Beattie, cereal grains and their use in poultry nutrition. I. Hatchability, B., 1016.

Smith, J. Blackmer, and Adams, W. L., use of Hoffman's method for determining magnesium in mixed fertilisers, B., 514.

Smith, J. C., higher aliphatic compounds. VI. Existence of compounds in binary systems from palmitic, margaric, stearic, tricosanoie, and tetracosanoic acids, A., 822.

See also Ashton, R., and Harris, P. L. Smith, J. E. See Naylor, Ltd., J. H.

Smith, James E. See Rice, C. E. Smith, J. H. See McKay, C. R.

Smith, J. H. C., carotene. X. Comparison of absorption spectra measurements on α - and β -carotene and lycopene, A.,

See also Niel, C. B. van.
Smith, J. H. F. See Shennan, R. J.
Smith, J. K., and Beryllium Corp., highspeed steel, (P.), B., 25. Gold alloy,

(P.), B., 1048.

Smith, J. M., jun. See Fish, F. H. Smith, J. W. See McDowall, F. H. Smith, K. M., plant viruses, B., 386.

Smith, L. [with Olin, B.], specificity of salt effect in some ionic reactions, A., 1210.

and Sjöberg, B., thio-derivatives of glycerol. I. Preparation of α-monothioglycerol, A., 704.

Smith, L. B., and Atlantic Refining Co., [acid-treated petroleum] sludge treatment, (P.), B., 486.

See also Du Pont de Nemours & Co., E. I.

Smith, L. E., Munger, F., and Siegler, E. H., phenothiazine, a new insecticide, B., 661. Smith, L. G. See Bleakney, W.

Smith, L. H. See Robinson, Robert.

Smith, L. I., and Denyes, R. O., reaction between duroquinone and sodiomalonic ester. III. Reduction products, A., 480.

and Hac, L. R., diene reaction between tetramethyl-o-benzoquinone and cyclopentadiene, A., 475.

and MacMullen, C. W., reaction between quinones and sodium enolates. IV. ψ-Cumoquinone and sodio-acetoacetic and -malonic esters, A., 732.

and Moyle, C. L., Jacobsen reaction. IV., A., 323.

and Taylor, F. L., reactions between organomercury compounds nitrosyl compounds, A., 324. Polymethylbenzenes. XIII. Mercuration, A., 352.

Smith, L. J., and Black, B. N., waterproofing, impregnating, and surfacing of jute and other fabrics, (P.), B., 100.

Smith, M. See Imperial Chem. Industries. Smith, M. C., and Lantz, E. M., effect of fluorine on phosphatase content of plasma, bones, and teeth of albino rats, A., 239.

Lantz, E. M., and Smith, H. V., fluorine

and mottled enamel, A., 633. See also Lantz, E. M., Schour, I., and Smith, H. V.

Smith, M. Elisabeth, factors which affect the quality of canned tomatoes. II., B., 1124.

Smith, Margaret E., and Lisse, M. W., electrophoresis cell for microscopic observations, A., 697.

Smith, Miles E., hard-facing [of metals]

with boron, B., 888.

Smith, M. I., and Seidell, A., preparation of a concentrate of vitamin- B_1 and B_2 from brewers' yeast, B., 1125.

Smith, Newbern, structure of thin films of metallic oxides and hydrates, A., 274.

Smith, Norman, sugar boiling in the Mackay district, B., 424.

Smith, N. B., Berry, R. M., and Knerr, H. C., recovery of waste pickling solutions, (P.), B., 988.

Smith, N. D., intensity distribution of continuous spectrum of hydrogen in mixtures with helium and with neon, A., 537.

Smith, N. R., occurrence of a strain of Azotobacter chroococcum which does not ferment mannitol, A., 113.

Smith, O., effects of light on carotenoid formation in tomato fruits, A., 1570.

Smith, O. W. See Smith, G. van S. Smith, P. D., and Clary, D. H., centrifugal filtering and clarifying apparatus, (P.), B., 673.

Smith, P. E., pituitary gonadotropic hormones, A., 762. General physiology of the anterior pituitary,

Dotti, L., Tyndale, H. H., and Engle, E. T., effect of hypophysectomy on blood-sugar in rhesus monkeys, A., 1530. Response of normal and hypophysectomised rhesus monkeys to insulin, A., 1565.

Smith, P. I., soap in the tannery, B., 849. Smith, P. K. See Nims, L. F. Smith, P. R., and Barber Asphalt Co.,

bituminous emulsion, (P.), B., 86. Douthett, O. R., and Barber Asphalt Co.,

bituminous emulsion, (P.), B., 357. Smith, P. T. See Bleakney, W.

Smith, R. A. See Du Pont de Nemours & Co., E. I.

Smith, R. A. (St. Andrews), radiationless transitions involving three-body collisions, A., 1175.

See also Massey, H. S. W. Smith, R. A. B., influence of calcium in the decay of wood, B., 791.

Smith, R. C., and Howard, H. C., mol. wts. of polymeric substances in pyrocatechol and their bearing on the nature of coal and derived products, A., 823.

See also Juettner, B.

Smith, R. G. See Brown, C. L.

Smith, R. H., controlling codling moth with nicotine vapour, B., 387. and Pershing, C. O., nicotine vapour in

codling-moth control, B., 1118.

Smith, R. L. See Watson, K. M.

Smith, Rachael M. See Marble, A.

Smith, Robert M., treatment of [boiler-food] feed] water, (P.), B., 528.

Smith, R. S., and Purdy, W. C., use of chlorine for correction of sludge bulking in the activated-sludge process, B., 699.

Smith, R. W., kyanite industry of Georgia, B., 1091. and Peerless White Lime Co., hydrated

lime composition, (P.), B., 696. Smith, Sidney, increasing efficiency of paint production, B., 335.

Smith, Stanley, and Convey, J., hyperfine structure separations of some terms in the thallium 11 spectrum, A., 1168.

Smith, Sydney, digitalis glucosides. VI. Existence of two anhydrodigoxigenins, A., 594.

and Timmis, G. M., new alkaloid of ergot, A., 351. New alkaloids of ergot: ergosine and ergosinine, A., 1131. Alkaloids of ergot. VI. Ergo-VII. isoErgine and isometrinine. lysergic acids, A., 1276, 1527.

See also Grant, R. L., and Lamb, I. D. Smith, S. B., Sturm, W. A., and Ely, E. C., equilibrium in the system lithium phthalate-phthalic acid-water, A., 282.

Smith, S. G. Sco Speakman, J. B. Smith, T. See Burbury Brick Co. Smith, T. A. See Firth, J. B.

Smith, T. P. See Smith, Stone & Knight.
Smith, W., assay of glyceryl trinitrate tablets, B., 75.

See also Evers, N.

Smith, W. A., motor fuel, (P.), B., 486. See also Du Pont de Nemours & Co., E. I., and Gibbons, W. A.

Smith, W. C., clean gum rosin, B., 703. Smith, W. E. See Small, L.

Smith, W. H., coating process [for iron or steel], (P.), B., 553.

Smith, W. J., and Turner, E. L., wet-

collodion, continuous tone negativemaking, B., 45.

See also Turner, E. L.

Smith, W. McF. See Steacie, E. W. R. Smith, W. O., sorption in an ideal soil, B., 513.

Smith, W. R. See Kistiakowski, G. B. Smith, W. S., recovery of tin and lead from scrap mixtures, (P.), B., 999.

Smith, W. V. See Brown, O. L. I. Smith, W. W., course of stone cell formation in pear fruits, A., 393.

Smith Corporation, A. O. See Andrus, O. E., Harris, H., Hasche, R. L., Hoyt, S. L., Jaeger, Hans, Larson, L. J., Martin, W. G., Stresino, C., and Walker,

Smith, Drum & Co., Drum, H. S., and Dodson, W. C., processing of fibre cakes, (P.), B., 831.

Smith Engineering Works. See Rumpel, H.H. Smith, Kline & French Laboratories. See Nabenhauer, F. P.

Smith, Stone & Knight, Ltd., and Smith, T. P., [embossed, pitch-impregnated] wrapping and packing paper and similar material, (P.), B., 1088.

Smithburn, K. C., and Sabin, F. R.,

cellular reactions to acetone-soluble fat from mycobacteria and streptococci; effect of neutralisation on biological activity of the tuberculolipin and of the phthioic acid derived from it, A., 641.

Smithells, C. J., and Ransley, C. diffusion of gases through metals. II. Diffusion of hydrogen through aluminium. III. Degassing of niekel and diffusion of carbon monoxide through nickel, A., 281, 1062.

See also Gen. Electric Co., and M.-O. Valve Co.

Smithfield & Argentine Meat Co., Ltd., and Brewster, J. A., conditioning of chilled meat in storage or transit, (P.), B., 1067. Smits, A., Ketelaar, J. A. A., and Müller, G. J., transition of solid ammonium

bromide at about — 39°, A., 555. and Moerman, N. F., internal changes in the system SO₃. I., A., 788.

Smits, B. L. See Barham, H. N. Smokeless Combustion Co., Ltd., Maw, William A., and Hunt, A. J., [boiler] furnaces, (P.), B., 723.

Smola, A. See Howards & Sons, Ltd. Smolek, K. See Lukeš, R.

Smolenskaja, L. E. See Federov, P. I. Smolenskaj, K., acid saponin of beetroot juice, A., 533. "Slow liming" of [sugar] juices, B., 710.

[with Kozlowski, W.], optical rotation of alkaline solutions of sucrose, A., 1065. [with Porejko, S.], p_H of solutions of calcium hydroxide in water and aqueous sucrose, A., 1065.

and Zero, W., solubility of calcium oxide in water and in aqueous sucrose, A., 932. Solubility of lime in water and in sucrose solution, B., 692.

Smoley, E. R., and Kratt, W. W., lubricating oils, B., 134. Separation of solvents and water in refining and dowaxing oils, B., 134.

Smoligina, E. I. See Zaprometov, B. G. Smolik, L. C., is the alcohol method for determining water content of soils reliable? B., 245. Iodine in Czechoslovakian soils, B., 1115. Smolina, L. B. See Zaprometov, V. G.

Smoljanitzkaja, I. Z. See Joffe, J. S. Smoljanitzki, I. A. See Golovati, R. N.

Smoluchowski, R., theoretical investigation, A., 1169.

See also Bleakney, W. Smorgonski, L. M. See Goldfarb, J. L. Smorodincev, I. A., and Bebeschin, K. V., glycogen content of tape worms ccstoids), A., 225. Chemistry of helminths. III. Tacnia solium. IV. Diphylobotrium latum. V. Ascaris lumbricoides, A., 748. Glycogen consumbricoides, A., 748. Glycogen consumbricoides, A., 748. tent of ascarids, A., 1286. Proteolytic enzymes in the tape worm, A., 1420. and Diskina, B. S., formation of indole

during decomposition of meat, B., 904. and Krilova, N. N., value of ammonia-and amino-nitrogen in the deter-mination of the quality of meat, B.,

and Laskovskaja, J. N., change in solubility of calcium compounds during the autolysis of muscle tissue, A., 361. Change in the solubility of sodium compounds during the autolysis of muscle tissue, A., 1011. Determination of changes in proteins of meat by digestion with pancreatin, B., 168. Variation in albumin content of meat determined by peptic digestion, B., 568. and Nikolaeva, N. V., chemistry of rigor

mortis, A., 749. and Palmin, V. V., chemical com-

position of pig's stomach, B., 168. and Pavlova, P. I., composition of the eggs of Tæniarhynchus saginatus and Diphyllobothrium latum, A., 1403.

Smull, J. G. See Taylor, R. S. Smullen, G. H. See Roberts, R. G.

Smyth, C. P., contributions from a study of dipole moments to the problems of organic chemistry, A., 1484.

and McNeight, S. A., molecular rotation in solid aliphatic alcohols, A., 1321. Molecular rotation of solid arsine and other hydrides, A., 1322.

See also MeNeight, S. A.

Smyth, E. M., and Wilson, P. W., apparent assimilation of nitrogen by germinating peas, A., 121.

See also Meyer, Karl.

Smyth, H. D., Harnwell, G. P., Bleakney, W., and Lozier, W. W., production of helium of mass three? A., 1312.

See also Bleakney, W., and Harnwell, G. P.

Smyth, H. F., Smyth, H. F., jun., and Carpenter, O. P., toxicity of carbon tetrachloride; animal exposures and field studies, A., 893.

See also Olsen, J. C.

Smyth, H. F., jun., determination of vapours of chlorinated hydrocarbons in air, B., 1182.

See also Smyth, H. F. Smythe, C. V., reaction of iodoacctate and of iodoacetamide with various thiol groups, with urease, and with yeast preparations, A., 1074. See also Michaelis, L., and Reiner, L.

Smythe, J. A. See Pearson, C. E. Smythe, W. R. See Wooldridge, D. E.

Snarski, A., determination of the gas content of horizons by the radioactivity of the minerals, A., 1226.

Snell, A. H., radioactive argon, A., 659. See also Foster, J. S., and Livingood, J. J. Snell, A. M., non-tropical sprue, A., 1016.

See also Adams, M.

Snell, F. D., heat-transfer liquid, (P.), B., 431. Acid- and water-proof cement, (P.), B., 456. Forming solid fuel

[anthracite] briquettes, (P.), B., 627. and Haeseler, K. W., accelerated method for determining wear caused

abrasion, B., 790.
and Kimball, C. S., oil emulsion [for polishes, etc.], (P.), B., 779.
and O'Connor, A. H. P., colour composition [for cell [P.) B. 100]

position [for coal], (P.), B., 109. See also Fain, J. M., and Moss, H. V.

Snell, J. F., [examination of] maple products, B., 1063.

See also Findlay, G. H.

Snelling, M. G., treatment of wood, (P.), B., 992.

Snellings, R. H., jun. See Cornthwaite, W. R.

Snethlage, H. C. S., oxidimetric analysis of binary mixtures of organic compounds, A., 744. Simple thermostat for temperatures between 100° and 150°, A., 954. Speed of decomposition of chromic acid in hot aqueous solutions of sulphur trioxido, and relation between this reaction and oxidising power, A., 1073. Catalytic influence of chromic sulphate on the speed of decomposition of chromic acid by heat, when dissolved in sulphuric acid of varying concentration, 1470.

Snickt, L. van der, clarification of molasses in yeast manufacture, B., 389.

Snider, G. E. See Starr, L. E.

Snider, S. R. See Coleman, D. A., and Fifield, $C.\ C.$

Snoek, J. L., magnetic powder experiments on rolled nickel iron, A., 413. New magnetostriction experiment, A., 671. Magnetic and electrical properties of the binary systems MO-Fe₃O₃, A., 929. Ferromagnetic phenomena, A., 1452. The "permalloy problem," B., 502. See also Burgers, W. G.

Snoke, H. R. See Strieter, O. G.

Snook, W. F., activated-sludge systems [of sewage treatment] and percolating filters in the balance, B., 862.

Snow, C., drop of potential in the metallic clectrodes of certain electrolytic cells, A., 1343.

Snow, H. R. See Standard Oil Co. of Indiana.

Snow, N. W. See Macdonald Snow, O. W. See Greene, H. See Macdonald, W. R.

Snyder, A. J., determination of the $p_{\rm H}$ values of dry colour pigments, with particular reference to Prussian-blues, В., 1108.

Snyder, F. H., Maclaren, S. F. M., and Industrial Res., tin-plating [steel], (P.),

and Snyder Maclaren Processes, reclaiming pulp from waste paper, (P.), B., 97.

Paper pulp, (P.), B., 97. Snyder, H. R., Buck, J. S., and Ide, W. S., homoveratric acid, A., 469.

Snyder, J. E., and Du Pont Cellophane Co., [cement for] laminated material, (P.),

See also Charch, W. H.

Snyder Maclaren Processes, Inc., reclaiming fibre from waste paper, (P.), B., 270. See also Snyder, F.H.

So, T., colorimetric determination of reduced glutathiene, A., 1308. Soane, O. V. See Whiteley, S.

Soares, M. See Jacobsohn, K. P., and

Pereira, F. B. Sobatzki, R. J. See Du Pont de Nemours &

Co., E. I. Sobczuk, B. See Parnas, J. K.

Sobel, A. E., Cohen, J., and Kramer, B., rickets due to strontium, A., 232. Nature of injury to calcifying mechanism, A., 232. Phosphatase activity and calcification, A., 232.

Drekter, J. J., and Natelson, S., microdetermination of cholesterol as pyridine cholesteryl sulphate, A., 1436.

Goldstein, G., and Kramer, B., formation of a sulphate salt of the anti-rachitic vitamin, A., 1161.

See also Drekter, J. J.

Sobin, B., and Bachman, G. B., dchalogenation of β-bromo-acids. IV. β-Bromophenylpyruvic acid, A., 331.

Sobolev, M. M., Bondareva, M. V., and Evteeva, M. F., thiocyanines as optical sensitisers for photo-emulsions, B., 621. Sobolev, V., iron ore deposits of the Ilimpeia

River, Eastern Siberia, A., 308. Soboleva, O. N. See Tschishikov, D. M. Sobolevski, M., recovery of technical

resins, B., 243. Soboliev, M. N., and Krasilnikov, N. S., extraction of vanadium from basic open-hearth slags by the soda method,

B., 23. Soborovski, L. S. See Brukev, A. B. Sobotka, H., Holzman, M., and Reiner, M., selective fermentation. III. Fermentation of hexose-pentose mixtures, A., 896.

See also Witebsky, E.

Sobotka, M., application of micro-Kjeldahl-Pregl method to determination of total

nitrogen in yeast, A., 760.

Sobne, H., and Itino, S., viscose staple fibre. I. Shortening of ripening process by pulping alkali-cellulose at higher temperature and by mixing the viscose, B., 364.

Moroyu, S., and Mitome, N., sizing of rayon. I. Effect of depolymerisation of starch on sizing. 1. Depolymerisation and viscosity, B., 271.

Socias-Viñals, W. See Pummerer, R. Società Anonima G. Della Coletta, surfacings of bituminous aggregates for roads, (P.), B., 1096.

Soc. Anon. Tedeschi & Co., V., vulcanisation of rubber, (P.), B., 706.

Soc. per l'Industria Articoli Caoutchouc e per Materiali Protettivi ed Antigas, activated carbon in granular form, (P.), B., 628.

Soc. Italiana Pirelli, softening of raw rubber and preparation of mixtures thereof, (P.), B., 112. Filtering masses for gas masks for affording protection against hydrocyanic acid, (P.), B., 302. Filters and purifiers employed for conditioning air, e.g., for respiration, by freeing it from poisonous gases and other injurious or undesired constituents, (P.), B., 622, 957. Filtering masses for removing aërosols and similar fine suspended matter from the atmosphere, (P.), B., 769.

Société Alsacienne de Constructions Mécaniques, rotary disc filters, (P.), B.,

Soc. Anonyme des Anciens Établissements Braunstein Frères, cigarette papers, (P.), B., 1147.

Soc. Anon. pour les Applications de l'Electricité & des Gaz Rares Établissements Claude-Paz & Silva, electrodes for high-pressure, metallic vapour electricdischarge tubes, (P.), B., 939.

Soc. Anon. le Carbone, primary cells [of the Leclanché type], (P.), B., 157.

Soc. Anon. des Ciments de Thieu, and Blondiau, L., cement, (P.), B., 149.

Soc. Anon. d'Escaut & Meuse, gas or air ports for Siemens-Martin openhearth furnaces, (P.), B., 997. Soc. Anon. Français "Eternit," a sound-

and heat-proof product, (P.), B., 792.

Soc. Anon. des Hauts Fourneaux de la Chiers, protection of cast iron and steel against oxidation at high temperatures, (P.), B., 1211.

See also Ernould, J.

Anon. Holbrever, coloured glass, (P.), B., 595.

Soc. Anon. Manufactures Générale Métallurgique, electric heating resistance elements, (P.), B., 845.

Soc. Anon. des Manufactures des Glaces & Produits Chemiques de St.-Gobain, Chauny & Cirey, periodic and controllable distribution of liquids, (P.), B., 82. Composite objects of tempered glass, (P.), B., 409. Multicellular glass, (P.), B., 790. Electric radiation furnace, (P.), B., 891. Means for observing the image produced by X-rays on a fluorescent screen, (P.), B., 955. See also Delpech, G.

Soc. Anon. des Matières Colorantes & Produits Chimiques de St.-Denis, and Lantz, R., printing or dyeing with azo-dyes, (P.), B., 272.

Soc. Anon. M. Naef & Co., higher lactones containing at least 11 carbon atoms iu

the lactone ring, (P.), B., 264.

Soc. des Ateliers R. de Magondeaux & Co., [felt] filtering elements for gas-

masks, etc., (P.), B., 174.

Soc. Carbochimique, Société Anonyme, separation of chlorohydrins from hydrochloric acid solution, (P.), B., 870. Chlorohydrins, (P.), B., 972.

Soc. des Compteurs Volumétriques, apparatus with large output for measuring granular material volumetrically, (P.), B., 579. Means for simultaneously determining the volume, weight, and density of granular and other materials, (P.), B., 579.

Soc. de Crédits Internationaux Société Anonyme, [compressed cereal] food,

(P.), B., 169.

Soc. d'Electro-Chimie, d'Electrométallurgie & des Aciéries Electriques d'Ugine, treatment of metals with slags, (P.), B., 329. Steel, (P.), B., 1161. and Andrieux, J. L., electrolytic manu-

facture of borides, (P.), B., 555.

Soc. des Établissements Barbet, continuous elimination by physical means of sulphur contained in benzols, (P.), B., 260.

Soc. d'Études pour la Fabrication & l'Emploi des Engrais Chimiques, separation of ammonium salts from their mixtures with other salts, (P.), B., 542.

Soc. d'Exploitation des Cables Electriques Système Berthoud Borel & Co., and Borel, J., protection of metals [underground cables] against electrolytic corrosion, (P.), B., 1049.

Soc. pour la Fabrication de la Soie Arti-ficielle "Rhodiaseta," obtaining effects or designs on yarns, threads, or fabrics containing cellulose esters or ethers,

(P.), B., 189.

Soc. Française de Catalyse Généralisée, olefine oxides and catalysts therefor, (P.), B., 487. Direct production of propylene oxide, (P.), B., 971.

Soc. Franc. de la Viscose, Vautier, L., and Carnot, C., artificial sponges, (P.), B.,

1147.

Lefebvre-Carnot, P., and Vautier, L., artificial sponges and similar spongeous artificial products, (P.), B., 560.

Soc. Générale Metallurgique de Hoboken, refining of copper, (P.), B., 1047.

Soc. des Hants Fourneaux de la Chiers. See under Soc. Anon. Hants Fourn. de la Chiers.

Soc. Industrielle de Nouveaux Appareils, S.I.N.A., extraction and recovery of fertilising materials contained in the wash of distilleries and purification of this wash, (P.), B., 1062.

"La Cellophane" Soc. Anon., moisture proof sheets, films, and coatings, (P.), B., 638. Coated materials, (P.),

B., 654.

Soc. Nobel Française, vinyl resins, (P.), B.,

Soc. des Proeédés Ecla, a product simulating leather, (P.), B., 786.

Soc. de Purification Industrielle des Gaz, [insulated] rapping mechanism used in electrostatic precipitation of particles from gas, (P.), B., 508.

Soc. de Recherches & d'Exploitations Pétrolifères, Cambier, R., and Cambier, M., sewage treatment, (P.), B., 350.

Soc. de Recherches & de Perfectionnements Industriels, briquetted fuel, (P.), B., 135. Soc. à Responsibilité Limitée "Laboratoire Egé," and Filliat, G. P., impervious and

transparent paper, (P.), B., 691. Soc. à Respons. Ltée "Ganeval & St.-Genis," [hydroextraction] treatment of

textile material, (P.), B., 591. Soc. Rhodiaceta, artificial [cellulosic] threads having a fluffy character, (P.), B., 1088.

Soe. des Usines Chimiques Rhône-Poulenc, therapeutically valuable antimony compounds [antimoniothiemalates], (P.), B., 124. β -Bromoethylbenzene, (P.), B., 139. Production of transparent materials [films, foils, plastic masses] from benzylcellulose, (P.), B., 736. Easily soluble salts of dialkylaminoalkylaminoacridines, (P.), B., 1179.

Soc. du Vorre Triplex, composite safety glasses, (P.), B., 595.

Society of Chemical Industry in Basle, carbazole derivatives [of anthraquinone series], (P.), B., 11. Chromiferous [azo]-dyes, (P.), B., 12. Textile assistants, (P.), B., 91. Dye preparations for dyeing animal fibres, (P.), B., 143. Dyeing of animal fibres, (P.), B., 143, 271. Artificial [resinous] masses, (P.), B., 161. Substituted amides of aliphatic-aromatic acids [pharmaceuticals], (P.), B., 171. [Hetero]cyclic amines, (P.), B., 183. Alkylated iminazoles of high mol. wt., (P.), B., 183. Retarding absorption or re-absorption of vat and sulphur dyes by the fibre, (P.), B., 231. 1:2-Diaminobenzone, (P.), B., 265. Dyes containing metal in complex union, (P.), B., 267. Wetting agents for use in alkaline baths, (P.), B., 310. Condensation products from primary aromatic amines and formaldehyde, (P.); B., 337. [Vat] dyes and intermediate products, (P.), B., 362. Quaternary ammonium salts [from higher halogeno-fatty acids], (P.), B., 442. Azo-dyes, (P.), B., 446. Dyes [ice colours], (P.), B., 446. Compressed sheet material having an opaque decorative surface, (P.), B., 450. Printing of [non-chlorinated] wool, (P.), B., 451. [Constructional means for] extinguishing of fires in rooms, (P.), B., 456. Indigoid dyes, (P.), B., 489, 782. Chloropyrene-quinones, (P.), B., 489. Fast prints on paper, (P.), B., 525. Materials for combating pests, (P.), B., 526. Heterocyclic mercury compounds, (P.), B., 572. Polynuclear cyclic alcohols, (P.), B., 634. Manufacture of moulded bodies from moulding powder, such as artificial resin, (P.), B., 654. Halogen derivatives of unsaturated sterols, (P.), B., 733. Bromination products of vat dyes [of the anthraquinone series], (P.), B., 734. Vat dyes [of the benzanthrone series], (P.), B., 734. Printing or padding of native or regenerated cellulose fibres or animal fibres, (P.), B., 737. [Aromatic amine-formaldehyde] synthetic resins, (P.), B., 752. Blue [azo]-dyes on the fibre [ice colours], (P.), B., 781. Manufacture and application [chromiferous] azo-dyes, (P.), B., 826. Fast prints on [cellulose-containing] fibre, (P.), B., 832. Production of violet to blue [azoie] dyeings on vegetable fibre, (P.), B., 832. Products suitable as assistants in mercerisation and the application thereof, (P.), B., 832. Materials having capillary activity, B., 859. N-Nitroamines of nuclear halogenated primary aromatic amines, (P.), B., 874. [Mono]azodyes, (P.), B., 876. [Vat] dyes [of the pyrenequinone series], (P.), B., 878. Printing textile products, (P.), B., 882. Dyeing or printing of fibrous material [with azoic dyes], (P.), B., 882. [Metal-containing disazo]-dyes, (P.), B., 923. Basic esters of polyarylacetic acids, (P.), B., 975. Azodyes [pigments and ice colours], (P.), B., 977. Azo-dyes containing chromium, (P.), B., 978. [Metalliferous] azo-dyes, (P.), B., 978.

Society of Chemical Industry in Basle, dyeing of leather [with tris- and tetrakis-azo-dyes], (P.), B., 983. Mercerisation [wetting agents], (P.), B., 984. Softening of textiles, leather, paper, and similar fibrous materials, (P.), B., 985. Sticking [or glueing of ply-wood, etc.], (P.), B., 1010. Arsenic compounds of the naphthaquinone series, (P.), B., 1018. Mercury compounds of the urethane series, (P.), B., 1019. [Vat] dyes of the anthraquinone series, (P.), B., 1033. Aminohydroxynaphthalenesulphonic acids, (P.), B., 1083. Quaternary ammonium compounds of iminazoles [glyoxalines], (P.), B., 1084. Carboxylie acids or derivatives thereof containing the pyridine nucleus, (P.), B., 1084. Fast printings on the fibre, (P.), B., 1089. Amines of the aliocholane or allocholane series, (P.), B., 1130. Manufacture of [black] azodyes on the fibre [ice colours], (P.), B., 1148. Purification of progesterone preparations, (P.), B., 1178. Hydroaromatic amino-alcohols and derivatives thereof, (P.), B., 1196. Production of dyeings and printings [of ice colours] on fibrous materials, (P.), B., 1204. Coloured masses [for lacquers, etc.], (P.), B., 1218.

and Bloxam, A. G., basic esters [of diarylacetic acids], (P.), B., 1083. and Bonhôte, G., [stable] diazo[nium

salt] preparations, (P.), B., 360. and Groves, W. W., polynuclear cyclic alcohols, (P.), B., 1017.

and Kraus, W., condensation products from urea, formaldehyde, and hexamethylenetetramine, (P.), B., 207.

Moser, W., and Fioroni, W., anthra-

quinone derivatives, (P.), B., 686.
Scholl, R., and Meyer, Kurt, 3:5:8:10tetra-aroylpyrenes, (P.), B., 733.
Stranb, F., and Widmer, W., o-hydroxy-

azo-dyes containing chromium, (P.), B., 877.

Society of Public Analysts, Methods Committee, the Analytical Reichert-Polenske-Kirschner process [for butter fat], B., 798.

Socony-Vacuum Oil Co., Inc. See Burkhard, M. J., Dunham, G. S., Edwards, M. C., King, R. D., Pummill, E. T.,
Rather, J. B., Sheldon, H. W., and
Story, B. W.
Soda, T., glucosulphatase, an enzyme

decomposing sulphuric esters of sugars, A., 1419.

and Egami, F., glucosulphatase. XII. Purification of the enzyme and the effects of phosphate, sulphate, and fluoride on the enzyme action, A., 378.

Soderborg, K. G., and Udylite Process Co., [copper] electric contact, (P.), B.,

Soderdahl, P. G. See Wirth, E. H. Sodomann, H. See Klemm, W. Söderman, M., fixing scale of Röntgen

wave-lengths in absolute measure, A.,

Söding, H., growth-promoting substance at the base of the oat coleoptile, A., 532.

Söhnchen, E., velocity of hardening during precipitation hardening, B., 197. Influence of chemical composition and grain size on precipitation hardening, B., 197.

Söhnchen, E., effect of strains due to chilling on lattice dimensions and hardness of aluminium-copper alloys of high purity, B., 413. Aluminium alloys of high purity, B., 413. Heat treatment of aluminium casting alloys, B., 550.

and Pivovarsky, E., hardenable cast steel containing copper, B., 1210.

Söllner, K., cavitation caused by ultrasonic waves, A., 1453. Mechanism of the formation of fogs by ultrasonic waves, A., 1460.

and Bondy, C., coagulation by ultrasonic waves, A., 562.

See also Bondy, C., Burger, F. J., Daniel, F. K., Freundlich, H., and Haley,

Sörensen, C., measurements of absorption, velocity, and out-gassing [of liquids] in the ultrasonic region, A., 787. Dependence on temperature of the absorption coefficients of ultrasonic waves in liquids, A., 1189.

Sørensen, M., naturo of the carbohydrate in lactalbumin, A., 1287.

Sørensen, N. A. See Schmidt-Nielsen, Sigval.

Sørensen, S. O., Beal, G. F., and Amer. Lecithin Co., lecithin from vegetable raw materials, (P.), B., 1233. Soeters, K. Sco Khouvine, Y.

Soff, K. Sec Frendenberg, K. Soffer, L. J. See Harrop, G. A.

Sofia, F. See D'Alessandro, G. Sokob, P. See Gabler, F.

Sokolik, A. See Rivin, M., and Voronkov, ν.

Sokolov, A., and Machalova, N., energy levels of electrons in a one dimensional lattice with localised defects (" Lockerstellen"), A., 668.

See also Ivanenko, D. Sokolov, A. D., and Piaid, O. F., influence of the conditions of condensation on the properties of ammoniacal phenol-

aldehyde resins, B., 847. Sokolov, M. N. See Schichikov, D. M. Sokolov, P. I., solubility in water and

aqueous sodium chloride of a-naphthylamine monosulphonic acids and their sodium salts, A., 675.

Sokolov, P. T., and Sosinski, S. L., influence of an electric field on viscosity of liquids,

Sokolov, S., effect of supersonic vibrations on chemical reactions, A., 1077. Influence of ultrasonic waves on the process of solidification of molten metals, A., 1190.

See also Skirstimonski, A. O.

Sokolov, S. I., and Koliakova, G. E. physical chemistry of tanning, B., 70. Electric charge of vegetable tans, B., 947.

Kreindel, A. L., and Gutkina, E. L., impregnation of leather with a tannide-albumin coagulant, B., 420.

Sokolov, V. F., preparation of l-xylose from plant refuse, B., 469.

Sokolov, V. S., hydrometallurgical treatment of residues from zinc distillation, 198. Utilisation of chlorides obtained in refining of lead with chloride, B., 199.

Sokolova, N. V. See Porai-Koschitz, A. E. Sokolova, P. N. See Vorontzov, I. I. Sokolskaja, I., concentration of electron beams by gases, A., 771. Sokoray, L. See Jeney, A. von.

Solacolu, T., and Constantineseo, D., action of β -indolylacetic acid on the development of seedlings, A., 1433.

Mavrodin, A., and Herrmann, G., odoriferous constituent of Periploca graca, L., A., 395.

and Welles, E., variation of saponins during germination and development in some species of grasses, A., 121.

Solandt, D. Y., measurement of accommodation in nerve, A., 632.

Sec also Irving, L.

Solandt, O. M. See Irving, L.

Solar Industries, Inc. See Ballentine, E. W.

Solberg, P., root excretions of plants grown with and without nutrient additions, B.,

Soldatoff, V. V., steel, (P.), B., 25.

Soldevila, A., continuous-dyeing machines, (P.), B., 929.

Soldner, F., manuring with molasses, B.,

Sole, A., hæmostatic action of maternal milk, A., 1287.

Soleillet, P., application of theory of coherence of vibrations, A., 654.

and Nikitine, S., polarisation of the radiation $\lambda=2139$ A. emitted by optical resonance of an atomic beam of zinc, A., 654.

Soler, G., refractory problems in basic alloy-steel production, B., 192.

Soletschnik, N. J., lignocellulose stearate, B., 378. Oxidation of wood with nitric acid, B., 405.

Soljus, N., and Laudenback, N., dependence of paper strength on composition of furnish and quality of mechanical pulp, and on its beating in the hollander, B., 268.

Sollazzo, G., iodo-derivatives of brucine, A., 871.

and Cortese, V., Donaggio reaction; [protective colloid in pathological urine], A., 229.

Soller, T., Goldwasser, S., and Beebe, R. A., sensitive manostat for low pressures and its application to the adsorption of hydrogen and deuterium on copper, A., 1355.

Soller, W., interpolation equation for photo-densitometer charts of X-ray diffraction patterns, A., 412.

and Thompson, A. J., crystal structure of cuprous ferrite, A., 1326.

Sollers, R. G. Sec Travers, M. W.Sollmann, T., and Schreiber, N. E., acute poisoning from mercuric chloride, A., 518.

Solmssen, U. See Karrer, P. Solodkov, P. A. See Kursanov, D. N. Solodushenkov, S. M. See Schilov, E. A. Sologub, I. See Kozlov, N. S.

Solomon, A. K., nuclear radius, A., 1046. Solomon, E., [plastic] composition for gramophone records, (P.), B., 654.

Solomon, J., absorption of high-energy particles by matter, A., 134. Absorption of high-energy protons by matter, A., 400.

Solomon, L. A. See Stewart, V. A. Solomon, M. Seo Vintilesco, I. Solomonica, B., and Kurzrok, R., effect

of endocrine gland preparations on allergic reactions (anterior pituitary extract, pregnancy urine extract, follicular hormone), A., 901.

Solomonica, E. See Nenitzescu, C. D. Solomos, G. I., rapid method for determination of reducing sugars, A., 126.

Soloschenko, A. A., dephlegmator design,

Solotarev, P. V., evaporation as mechanical subdivision to molecules, A., 20. and Obudovskaja, J., fugacity of salts present in boiling solutions, A., 23.

Solotarev, S. S. Seo Schvemberger, V. I. Solotareva, S. See Passinski, A.

Solotarevskaja, E. Sec Bruns, B. Solovejtschuk, V. J. Sec Joffe, J. S.

Soloviev, A., determination of milk-fat yields of cows, B., 391. Soloviev, A. V., effect of water vapour on

rate of interaction between iodine and metals (iron and copper), A., 571. Interaction between aluminium and iodine in an air atmosphere of different humidities,

Soloviev, I. A. See Nikitin, N. I. Soloviev, S. M., influence of $p_{\rm H}$ on hypersensitisation, B., 1020.

Soloviev, S. P., granodiorito laccolith of the Malka river (Caucasus) and its content of radium, A., 1483.
Solovjeva, M. See Michlin, D.

Solovov, A. M. See Nikolaev, V. I. Soltys, A., micro-Kjeldahl flask, A., 698. Micro-analytical determination active hydrogen by the Tschugacv and Zerevitinov method, A., 872.

and Umrath, K., irritant principle in Mimosoideæ, A., 534. and Wallenfels, K., solanine and solan-

idine, A., 742. See also Lieb, H.

Soltzberg, S. See Wolfrom, M. L. Solvay Process Co. See Hanchett, A.,

and Terziev, G. N. Sólyom, Z. B., phosphorus pipette for determination of oxygen, A., 1481.

Somer, A. J., and Harding, K., treatment of water-soluble borates, (P.), B., 542.

Someren, E. H. S. van, spectrographic determination of small quantities of copper, lead, arsenic, and antimony in nickel and nickel sulphate solutions,

Somers, H. J., [air] filter, (P.), B., 529. Somers, N. C. See Du Pont de Nemours & Co., E. I.

Somerville, A. A., effect of oxygen absorbers in rubber, B., 338. Rubber com-

pounding, (P.), B., 1221.

Somerville, I. C. See Hester, W. F.

Somigli, G., hollow bronze castings, B., 935.

Somin, B. E. See Messkin, V. S. Sommer, A. L., relationship of phosphate concentration of solution cultures to type and size of root systems and time of maturity of certain plants, A., 767. Relation of root system to minimum phosphate concentration necessary for good [plant] growth, B., 515.

Sommer, II., testing cellulose-wool fibres, B., 448.

Sommer, H. H., acidity of milk and dairy products, B., 41. Effect of salt content on freezing of ice-cream mix, B., 1015.

and Matsen, H., relation of mastitis to rennet coagulability and curd strength of milk, B., 666.

See also Charles, D. A., and Stebnitz, V. C.

Sommer, R., electrochemical purification of water, B., 397.

Sommer, W. H., Nat. City Bank of Cleveland, and Chapman, J. A., coating iron or steel sheets with a protective metallic coating [zinc], (P.), B., 281.

Sommerfeld, A., shape of the Compton lines, A., 1041.

[with Bartelink, E. H. B.], calculation of work of exit in the Richardson effect by a method of O. Scherzer, A., 399.

and Bartlett, B. W., longitudinal resistance changes in a magnetic field according to elementary theory, A.,

Sommerfeld, A.P., manufacture of moulded articles by injection moulding, (P.), B.,

Sommerfeld, E. See Malyoth, G.

Sommermeyer, A., rendering of fish, fish refuse, etc., (P.), B., 523.

Sommermeyer, K., collision of corpuscular

rays with solids, A., 539. See also Beoken, O., and Seeliger, R.

Somogyi, J. C., microcolorimetric apparatus and a method for determination of total blood volume, A., 1572.

Sonderhoff, R., nettle poisons; poison of sea anemones. I., A., 1534.

and Deffner, M., mechanism of oxidation processes. XLVI. Anaërobic fermentation of citric acid, A., 1560.

and Thomas, H., enzymic dehydrogenation of trideuteroacetic acid, A.,

Sondern, C. W., phenolic esters of pmethoxycinnamio acid, A., 984.

Sone, C., constitution of jegosapogenin. II., A., 1262.

See also Kitasato, Z.

Soneda, Y., fat metabolism. I. Effect of ingestion of olive oil on lipin contents of rabbit tissues. II. Effect on lipin contents of splenectomised rabbit tissues. III. Effect on sulphur distribution in rabbit tissues, A., 370.

and Kato, Yoshikayu, experimental scurvy. XXIV. Gas metabolism, A., 366.

Sonntag, A. See Neumann, B.

Sonol, $J_{\cdot,\cdot}$ efficiency of stabilisers used in preservation of hydrogen peroxide, B.,

Soonawala, M. F., density of saturated vapours, A., 1454.

Soper, F. G., atomic heats of formation and bond energies, A., 1340. See also Jones, Islwyn.

Soper, H. W., cholesterol, A., 1400.

Sorber, D. G. See Chace, E. M.

Sordelli, A., chemical aspects of immunity, A., 622. Soremba, K. H. See Slotta, K. H.

Soreni, E. T., effect of training on respiration of muscle-tissue, A., 1543. Sorenson, B. E. See Du Pont de Nemours

& Co., E. I.

Sorgato, I., nitrogen compounds and the technological value of the sugar beet, B., 1118.

Sorgdrager, P., determination of the urea content of blood-scrum, A., 1530.
Sorin, A. P. See Lapin, L. N.
Sorkin, E. See Leites, S. M.

Sorkin, M. E., buttermilk: determination of the bacterial count by the methyleneblue, reductase, and agar plate methods, B., 426.

Sorm, F. See Majrich, A. Sornet, R., rue oil, B., 475. Soroos, H. See Calingaert, G.

Soru, E., dehydrogenase of the S and R forms of B. coli, A., 898. Sory, R. See Rice, C. E.

Sosa, A., and Sosa-Bourdouil, C., variations in the composition of the birch (Betula alba, L.) during the year, A.,

See also Salazar, M. T.

Sosa-Bourdouil, C., composition of purebred and hybrid peas, A., 768. See also Sosa, A.

Sosinski, S. L. See Sokolov, P. T.
Soske, J. L. See Kelley, V. C.
Soskin, S., Allweiss, M. D., and Mirsky,
I. A., interpretation of abnormal glucose-tolerance curves occurring in toxæmia in terms of liver function, A., 101.

and Mirsky, I. A., influence of progressive toxemic liver damage on glucose tolerance curve, A., 231. "Hunger diabetes" and utilisation of glucose in the fasting dog, A., 1411.

Mirsky, I. A., Zimmerman, L. M., and Crohn, N., effect of hypophysectomy on gluconeogenesis in the normal and depancreatised dog, A., 1411.

Mirsky, I. A., Zimmerman, L. M., and Heller, R. C., normal glucose tolerance curves, in the absence of insulin, in hypophysectomised depancreatised dogs, A., 1411.

See also Freed, S. C. Sosunov, S. L. See Ageenkov, V. G.

Sotova, V. P., and Orlov, N. I., zinc content of foods and its importance to health, B., 617.

Soubarev-Chatelain, (Mme.) Z., mannitol-dimolybdic acid; variation of p_{Π} of molybdic acid caused by addition of sugar, A., 453. Souche, L. See Canals, E.

Soudure Autogène Française, electrodes for use in are welding, (P.), B., 606.

Soulary, P. See Fassbinder, J.
South, F., jun., Neuhausen, O. E., and
Lava Crucible Co. of Pittsburgh, crucible furnace, (P.), B., 997.

South Dakota Agricultural Experiment Station, ground flax and other protein supplements with maize for fattening calves and pigs, B., 74.

South Metropolitan Gas Co., moisture content of coal and its relation to other properties, B.; 433. Measurement of swelling properties of coal, B., 433.

and Boiling, E. H., removal of hydrogen sulphide from gases, (P.), B., 1138.

and Chandler, D., salt-bath furnaces, (P.), B., 2.

Chandler, D., and Skinner, A. J., boiling or similar pans, (P.), B., 130. and Greenwood, H. D., apparatus for measuring acidity of gases, (P.), B., 739.

Stanier, H., and Leet, R., hydrogenation of tar oils, (P.), B., 357.

Sec also Gas Light & Coke Co., and

Prestage, A.J.Southard, J.C., and Royster, P.H., thermal dissociation of calcium carbonate, A., 798.

Southcombe, J. E., lubrication: recent research, B., 867.

Southern Cotton Oil Co. See Royce, H. D. Southern Mineral Products Corporation.

See Saklatwalla, B. D.
Southern States Portland Cement Co., cement, (P.), B., 792.

Southern Whaling & Sealing Co., Ltd., and Bostock, B. R., recovery of dried-meat products from whale meat, etc., (P.), B., 857.

Southey, A.W., and Southey, E., apparatus for spraying liquid, (P.), B., 817. Southey, E. See Southey, A. W.

Southgate, B. A. See Alexander, W. B. Southgate, G. T., the general transformer, a new source of direct-current power for electrochemical purposes, B., 554. Southon, W. R. See Garner, W. E.

Southwell & Co., Ltd. See Sturges, T. E.

Southwick, L. See Shaw, J. K. Souviron, P. F. J., Bebin, P., and Bigourdan, P. E., cupric mixtures for agricultural purposes, (P.), B., 453.

Sovalova, A. See Shukova, A. Sovetinova, K. See Perov, S. S.

Sovz, E. I., and Kheifetz, V. L., monochromatic cobalt Ka radiation (1.787 A.),

Sowa, F. J., Arcadi, V. G., and Nieuwland, $J.\ A.$, determination of organic sulphur by the liquid ammonia-sodium method, A., 353.

and Nieuwland, J. A., organic reactions with boron fluoride. XII. Preparation of esters of aromatic acids, A.,

See also Gierut, J. A., Kroeger, J. W., and Wunderly, H. L.

Soyck, W. See Albers-Schönberg, E.

Soyez, E., and Chérouvrier, M., separation of foreign bodies from powdered materials, (P.), B., 80. Sozánski, S. Sec Terlikowski, F. Sozzi, J. A. Sec Rossi, L.

Spacu, G., and Armeanu, V., volumetric determination of nickel, A., 953.

and Dragulescu, C., potassium and sodium mercury sulphites; potentio-

metric investigation. II., A., 574. and Kuraš, M., metallic salts of thiol-benzthiazole, A., 215. Gravimetric determination of metals [with thiolbenzthiazole]. III. Determination of load, thallium, bismuth, and gold, A., 443.

and Macarovici, C. G., colorimetric determination of cobalt, A., 953. Volumetric determination of selenocyanate, A., 1081.

and Popper, E., refractometric investigations of aqueous solutions of salt mixtures; system barium chloridepotassium chloride, A., 27.

and Vancea, M., complex cobaltioxalates. II., A., 948.

and Voichescu, P., ammoniates of simple salts. I. Ammoniates of copper salts. II. Ammoniates of zinc salts. III. Ammoniates of cadmium salts, A., 573, 809, 945.

Spacu, P., potentiometric determination of metavanadates with silver nitrate, A., 180. Potentiometric determination of oxalates with silver nitrate, A., 190. Gravimetric determination of ccrous salts, A., 303. Gravimetric determination of sclenates, A., 442, 811. Potentiometric determination of cerous salts with ferrocyanide, A., 443. Quantitative separation of iron from copper and nickel, A., 952. Argentomercuric compound, A., 1079.

See also Binder, O. Spadola, J. M., and Ellis, N. R., effect of ingestion of cottonseed oil before and after hydrogenation on composition of the body-fat of the rat, A., 510.

Spaeth, C. P., and Hutchison, G. F., determination of water in glycerol, B., 309. See also Du Pont de Nemours & Co., E. I. Späth, E., and Becke, F., cactus alkaloids. XV. Separation of the Anhalonium bases, A., 88.

and Englaender, G., occurrence of piperidine in black pepper, A., 395.

and Galinovsky, F., dehydrogenation of oytisine and product of the degradation of this base, A., 741. Processes of catalytic dehydrogenation. IX. Dehydrogenation of hydrogenated derivatives of 2-pyridone, A., 1388.

Hicks, C. S., and Zajic, E., d-nornicotine, A., 488.

and Kainrath, P., natural coumarins. XX. Constitution of nodakenin from Peucedanium decursivum, Maxim, A.,

1387.

and Kesztler, F., poganine. X. l-Peganine (l-vasioine) from Adhatoda vasica, Nees, A., 489. Cactus alkaloids. XVII. Optical activity of pellotine, A., 741.

Kondo, H., and Kuffner, F., identity of tazettine from Narcissus tazetta, L., with "base VIII," from Lycoris

radiata, Herb., A., 869. Kuffner, F., and Kesztler, F., synthesis of benzyltetrahydroisoquinoline bases under so-called physiological conditions, A., 489.

Kuffner, F., and Lintner, J., peganine. XII. Peganine derivatives and their

picrolonates, A., 1394.

and Mamoli, L., tobacco bases. Synthesis of myosmine. VII. New synthesis of dl-anabasine, A., 741, 869.

Manjunath, B. L., Pailer, M., and Jois, H. S., synthesis and constitution of

psoralene, A., 861.

Marion, L., and Zajic, E., tobacco bases. IV. Syntheses of l-nornicotine, A., 488. and Pailer, M., natural coumarins. XVII. Synthesis of xanthotoxin, A., 733.

Platzer, N., peganine. VIII. Derivatives of peganine and its ring homologues. IX. Syntheses of Δ^2 pegene and peganine. XI. 49-Pegen-1-one, A., 215, 489.

Schmid, L., and Sternberg, H., rhoeadine

and rhoeagenine, A., 1003.

and Simon, A. F. J., natural coumarins. XVI. Coumarins of the root of Heracleum sphondylium, L., A., 860.

Simon, A. F. J., and Lintner, J., natural coumarins. XIX. Constitution of ammoresinol, A., 1118.

Wenusch, A., and Zajic, E., tobacco bases. V. Constitution of myosmine, A., 488.

Späth, H. See Dirr, K. Späth, W., influence of springing of the tensile machine on stress-elongation diagram, B., 328.

Spagnol, G., anti-infective power of

vitamin-D, A., 391. Spalding, H. A., blast furnace [for smelting

of iron ores], (P.), B., 600.

Spalding, W. L., and Amer. Cyanamid Co., sulphur trioxide, (P.), B., 102.

Spanagel, E. W., and Carothers, W. H., preparation of macrocyclic lactones by depolymerisation, A., 706.

Spanedda, A., polysaccharide of the typhus I. Toxio and immunising action. II. Attenuation by means of formaldehyde, benzaldehyde, and salieylaldehyde. III. Agglutinin titre in rabbits, A., 1010, 1403.

Spangler, R. D., dependence of cybotactic groups on specific volume, A., 274.

Spangler, S. F., reconditioning [metal-] pickling solutions, B., 200.

See also Hechenbleikner, I.

Spanner, E. F., thimble-tube heat exchanger, (P.), B., 79.Spanner, H. J., high-pressure mercury—

cadmium vapour lamp, a metal-vapour lamp for general illumination, B., 417.

Doering, U., and Electrons, Inc., obtaining [electron-]emissive coatings, (P),

Germer, E., and Electrons, Inc., cold cathode-discharge tube, (P.), B., 1052.

Wedel, C. J. R. H. von, and Electrons, Inc., material for discharge-tube anodes, (P.), B., 66.

Sparks, C. E., and Nelson, R. E., isomeric monoalkyl others of β -methylpropane- $\alpha\beta$ -diol from $\alpha\beta$ -epoxy- β -methylpropane, A., 704. a-Chloro-β-methylpropan-β-ol from aβ-dichloro-β-methylpropane, A.,

Sparks, W. J., and Marvel, C. S., rearrangement of polyinenes. IX. Dimerides of tritert.-butylethinylmethyl halides, A., 962.

Sce also Du Pont de Nemours & Co.,

Spatz, R., and Sennac, R., treatment of wood for obtaining dry fuel, (P.), B., 179, 259. Treatment of carbonisable products for obtaining a dry fuel, (P.), B., 356.

Spatz, W., micro-burette, A., 446.

Spausta, F., motor spirits at home [Austria] and abroad, B., 916.

Speakman, J. B., cross linking formation in keratins, A., 1396. Reactivity of the sulphur linking in animal fibres. I. Chemical mechanism of permanent set, B., 1033. Treatment of fibres or fibrous materials [hair er wool] containing keratin, (P.), B., 1200.

Chamberlain, N. H., MacDonald, W., and MacDonald, H., permanent waving of keratin-containing fibres, (P.), B., 1086.

and Cooper, C. A., adsorption of water by wool. I. Adsorption hysteresis. III. Influence of temperature on the affinity of wool for water, B., 1033.

and Smith, S. G., structure of animal fibres in relation to acid dyeing, B.,

and Stott, (Miss) E., adsorption of water by wool. II. Influence of drying conditions on the affinity of wool for water, B., 1033.

and Townend, F., titration curve of feather-keratin, A., 1012.

and Whewell, C. S., reactivity of the sulphur linking in animal fibres. II. Action of baryta and caustic soda on human hair, B., 1198.

See also Imperial Chem. Industries. Spear, E. B., Moore, R. L., and Thermatomio Carbon Co., carbon black, (P.), B., 52.

Specchia, O., and Dallaporta, N., Kerr effect in polar molecules, A., 780. Electron diffraction by single crystals, A., 784.

and Scandurra, G., interpretation of Raman line of benzene at 984 cm.-1, A., 922.

Specht, H. See Kossner, A. Specht, Z., determination of specific electrical resistance of substances in powder form, A., 924.

Specialty Guild, Inc. See Esselen, G. J. Speckhardt, G., methods for works super-

vision of the reactivity of coke, B., 772. Spector, E. M. See Koschkin, M. L. Spedding, F. H., nature of energy states in solids, A., 1316.

Spée, V., theory of coal washing, B., 770. Speers, J. A., control of oxide purification plant [for gas], B., 725.

Spehl, P. See Adant, M. Speicher, J. K. See Hercules Powder Co., and Pfeiffer, G. H.

Speier, II., colorability of Bemberg and rayon silks with substantive and indanthrene dyes, B., 188.

Speier, I. See De Caro, L.

Speirs, J., and Mitchell, W. J., determination of nitrogen by Kjeldahl's method; ammonia distillation, A., 694.

Speitel, C. See Romann, R.

Spek, J. J. van der. See Böeseken, J. Speller, F. N. See Simpson, A. W.

Spelling, R., reducing viscosity of cellulose ester wasto, (P.), B., 588.

Spells, K. E., viscosity of liquid gallium over an extended range of temperature, A., 418. Viscosities of liquid mixtures, A., 419.

Spence, A. W., and Scowen, E. F., use of gonadotropic hormones in treatment of imperfectly-migrated testes, A., 253.

Spence, D., and Niel, C. B. van, bacterial decomposition of the rubber in Hevea latex, B., 896.

Spence, H., Hock, A. L., and Spence & Sons, Ltd., P., preparations for agricultural or horticultural pest control, (P.), B., 517.

Riley, G. H., and Spence & Sons, Ltd., P., preparation and use of aluminium [phosphate] compounds, (P.), B.,

Spence, H. S., monazite from West Portland Township, Quebec. I., A., 49. Radium discoveries in N.W. Canada, A., 699.

Spence, R., slow combustion of formalde-

hyde, A., 801. and Wild, W., photochemical decom-position of gaseous methyl iodide alone and in presence of hydrogen and nitrous oxide, A., 437. Mechanism of the photo-decomposition of acetone, A., 1077.

Spence & Sons, Ltd., P. See Crundall, S. F. W., and Spence, H.

Spencer, A. C. See Standard Oil Development Co.

Spencer, D. A. See Murray, H. D. Spencer, H. C. See Morgulis, S. Spencer, H. W., and Davis, L. S., muffle

and similar furnaces, (P.), B., 2. Furnaces and their operation, (P.), B., 2. Spencer, J. F., and Oddie, G. T., preparation

of lithium alum, A., 1057 See also David, (Miss) A. W., and Trew,

V. C. G.

Spencer, P. L., and Old Colony Trust Co., photo-electric tube, (P.), B., 460.

and Raytheon Production Corp., vacuum tube, (P.), B., 699. [Getter for] rectifier tubes, (P.), B., 798. Liberation of alkali metals [from vacuumtube electrodes], (P.), B., 1104.

Spencer, R. C., equation for X-ray crystal curves, A., 412. Focussing effect of double-crystal spectrometer, A., 814.

Spencer, W. D. See Imperial Chem. Industries.

Spencer, IV. H., chilling properties of cast

iron, B., 644.

Spencer-Smith, J. L., electrical method for measuring moisture content of fabrics, B., 14.

and Matthew, J. A., rapid determination of the moisture content of textiles, B., 1145.

Spencer-Strong, G. II., development of a sand-abrasion machine, B., 544.

Spengler, O., experiences of the last [beetsugar] campaign (slice-sulphuring, predefecation), B., 1119.

Böttger, S., and Krüger, IV., influence of different purification processes on the quality of beet-sugar juices with special regard to the ripeness of the beets, B., 1225.

Böttger, S., and Seeliger, B., chemistry of [beet] juice discoloration. I., B., 1225.

and Dorfmüller, G., action of alkali carbonate on calcium salt solutions and of carbon dioxide on limed sugar solutions and factory juices. III., B., 1225.

Tödt, F., and Böttger, S., recording

density [of sugar solutions], B., 613. Tödt, F., and Scheuer, M., laws of reaction of invert sugar and sucrose with hot alkaline copper solutions, B., 1225.

Spenke, E. See Lueder, H.

Speranskaja, M. See Tschulkov, J. I.
Speranski, V. See Ustjanov, V.
Speranski, V. G., production of stainless acid-resisting steel in the "Zaporoshstal " electric are furnace, B., 994.

Sperber, J., and Bodmer, J. F., basicity of phosphorous acid. I., A., 810.

Sperr, F. W., jun. See Koppers Co. of Delaware.

Sperr, J. W. See Koppers Co. of Delaware. Sperry, W. M., effect of tissue extracts on esterification of cholesterol in serum, A., 757. Relationship between total and free cholesterol in human bloodserum, A., 875.

Speyer, E. R., control of Thrips tabaci, B., 709. Rose thrips, B., 709.

Speyer, J., artificial [viscose] sponges, (P.), B., 142.

Spicer, B. A., emanation electroscope, A.,

Spicer, G. W., reduction of ferric chloride under action of a-, β -, and γ -rays, A.,

Spiekard, V. W., vitamin-D milk, B., 250. Spiegel, E., and Spiegel-Adolf, M., physicochemical mechanisms in convulsive reactivity, A., 1553. Spiegel, G. See Ulich, H.

Spiegel-Adolf, M., physical chemistry of lipins. V. Behaviour of kephalin from human brain towards acids and bases, A., 1286.

See also Spiegel, E. Spiegl, A. See Enders, C., and Schild, E. Spiegler, L. See Du Pont de Nemours & Co., E. I.

Spieker, IV. See Schittenhelm, A.

Spielman, L. A., Joyner, N. T., Lappen, J. J., and Stillman, R. C., report of [A.O.C.S.] Committee on [determination of] soap in refined oils, B.,

Spielman, M. A., and Anderson, R. J., lipins of tubercle bacilli. XLII. Phthioic acid, A., 314.

Spielmann, R., dependence of the excitability of respiratory centre on the thyroid, A., 220.

Spiers, F. W. Sco Brindley, G. W.

Spiers, H. M. See Thermal Industrial & Chemical (T.I.C.) Res. Co.

Spiers, M. A. See Himwich, H. E. Spiers, W. E. See Hickman, A.

Spiesman, I. G. See Gellhorn, E Spiess, K. F. See Stackelberg, M. von. Spikes, W. F. See Benedetti-Pichler, A. A.

Spilde, L. S., conservation of food-stuffs by the A.I.V. method in Norway, B., 1125. Spillane, P.A., Keane, J., and Nolan, T.J.,

constituents of lichens found in Ireland, Buellia canescens. II., A., 1514.

Spindler, E. See Frey, A.

Spinelli, A., organic oxidation in fever; oxido-reduction (dehydrogenation) and the oxidising enzymes in fibrous tissueprocesses, A., 1015. Spink, L. K. See Lewis, S. R.

Spinnerei Aktien-Gesellschaft vorm. J. F. Klauser, production of yarns from longstaple artificial silk fibres, (P.), B., 982. Spiridonova, A., action of hydroxylamine and phenylhydrazine on glycine anhydride and glycylglycinc, A., 973.

Spiridonova, S. I., simultaneous preparation of essential oils and furfuraldehyde from odorous plants, B., 954.

Spitaler, P. See Schmidt, Walther.

Spitz, A., and Hochwald, A., chemistry of anaphylactic shock, A., 1285.

Spiwak, G., and Reichrndel, E., influence of metastable atoms on the electron temperature in the positive column, A., 771.

Šplait, L., dust effects, A., 270. Periodic variations of labile [alcohol-water] molecular complexes and their equilibrium position, A., 1454.

Splichal, J., adsorption of dyes on previously

ignited gels, A., 283.

Splittgerber, A., heat economy and the treatment of feed-water and boilerwater in the German chemical industry, B., 720. Boiler feed-water control, B.,

Spoehr, H. A., and Milner, H. W., leaf starch: isolation and properties, A., 124. Spooner, W. W., calendering or drying of materials, (P.), B., 15. Liquid treatment of materials in web or sheet form, (P.), B., 315. Drying of materials, (P.), B., 721.

Spormann, W. See Meyer, Julius.

Sporzyński, A. See Grischkievitsch-Trochimovski, E. Spoujitch, V., and Boritch, D., tubercle

allergy and blood-cholesterol, A., 1016. Sprague, E. C., the graphitising furnace, B., 1103.

Sprague, J. M., and Johnson, T. B., pyrimidines. CXLVIII. Action of on mercaptopyrimidincs. chlorine CXLIX. Reactions of 2-ethanesnlphonylpyrimidines, A., 212, 614. See also Johnson, T. B.

Sprague, R., and Ivy, A. C., avian carbohydrate metabolism, A., 1411.

Sprague, R. C., McCann, J. F., and Sprague Specialties Co., electrolytic condenser, (P.), B., 156. Electrolytic device [condenser], (P.), B., 605.

and Sprague Specialties Co., electrolytic condensers and circuit arrangements therefor, (P.), B., 700.

Sprague-Sells Corporation. See Lewis, H. R.Sprague Specialties Co. See Godsey, F. W.,

jun., Robinson, P., and Sprague, R. C. Spreckles Sugar Co., recovery of sugar [from beet molasses], (P.), B., 1226. Spreter, T. von, effect of extirpation of the parathyroid and thymus of rats on development of the gnawing teeth: influence of vitamin-D, A., 527.

Spring, F.S., and Vickerstaff, T., behaviour of keten in the Friedel-Crafts reaction,

A., 726. See also Bann, B., Beynen, J. H., Barr, T., Coffey, D. H., and Heilbron, I. M.

Springall, H. D. Sec Sidgwick, N. V. Springer, R., significance of the p_H value in alkaline baths for electrodeposition, B., 1161.

Springer, U., how is the influence of manuring on soil organic matter shown, and how can it be detected? B., 467. Form of combination of humus matter especially in forest soils, B., 1058.

Springorum, F., technical developments in German iron and steel production during the last fifteen years, B., 993.

Sprinkel, K. M. See Mantell, C. L. Sprinkmeyer, F., protection of roasted coffce from uptake of water and loss of aroma by suitable wrapping material, B., 346.

Spriskov, A. A. See Fedorov, B. P. Sproat, I. E., use of pyrophyllite in walltile bodies, B., 642.

Sproul, E. E. See Jobling, J. W.Sproule, W. H., butter deterioration, B.,

1015. Sprung, M. M. See Lauer, W. M. Sprunk, G. C. See Thiessen, R. Spruyt, J. P., and Donath, W. F., vitamin-

C (ascorbic acid) content of [East] Indian fruits, A., 255.

and Veen, A. G. van, isolation of crystal-line vitamin-U from lombok (Capsicum annuum, L.), A., 1033.

See also Donath, W. F. Spulnik, J. B. See Ware, G. C. Spurlin, H. M. See Gloor, W. E.Spyco Smelting & Refining Co.

Taylor, N.O. Squibb & Sons, E. R. See Christiansen, W. G., Jones, W. S., Lee, J., Lott, W. A.,

Moness, E., and Nitardy, F. W. Squibbs, F. L., [essential oils from Seychelles], B., 44.

Squire, F. A., rice weevil control, B., 664.

Squire, F. J., determination of rosin acids in fatty acids by the refractometer, B., 748.

Squires, L., and Dockendorff, R. L., concentrio cylinder viscosimeters, A., 1085.

See also Lewis, W. K.

Srebrow, B., influence of crystalline addenda on the velocity of evolution of gas from carbonates. II., A., 1076.

Sreenivasan, A., rôle of organic matter in plant nutrition. XI. Effect of manuring on growth and intake of silicon by wet- and dry-cultivated rice, B., 612. Rôle of silicon in plant nutrition. III. Nature of interaction of soil or hydrogels of iron oxide or alumina with mixtures of phosphates and silicates. IV. Effect of silicate fertilisation on growth of rice plant and yield of paddy, B., 659.

and Das Gupta, H. P., nutritive value of parboiled rice, B., 1123.

and Subrahmanian, V., quality in foods, B., 217.

See also Giri, K. V.

Sreenivasaya, M., and Narayana, N., sandal-seed oil and proteins, B., 749. See also Bhagvat, K., Iyengar, N. K., Sastri, B. N., and Sreerangachar, H. B.

Sreenivasmurthyachar, C. See Varma, P. S.

Sreerangachar, H.B., and Sreenivasaya, M., antianæmic principle of liver, A., 360. Srikantan, B. S., behaviour of gases under

the influence of high-frequency discharge; ammonia and hydrogen, A., 808.

Srinivasan, M. See Damodaran, M. Srinivasan, M. K. See Varma, P. S. Srinivasan, T. K. See Dey, B. B.

Srivastava, P. D. See Varma, P. S.

Srivastava, R. C., quality of Indian sugar, B., 1173.

Stabler, H. P., symmetry of thermo-electric effects in single crystals, A.,

Stacey, M. See Haworth, W. N. Stacey, R. S. See Goadby, H. K.

Stack, J. R., and Caulk Co., L. D., dental [tin-silver] alloy, (P.), B., 1048.

Stackelberg, M. von, and Quatram, F.,

volatility and dehydration of boric acid, A., 1062.

Quatram, F., and Antweiler, H. J., solid solutions of methane and krypton, A., 1060.

Schnorrenberg, E., Paulus, R., and Spiess, K. F., aluminium carbide, Al₂C₃, and aluminium carbonitride, Al₅C₃N, A., 301.

and Spiess, K. F., structure of aluminium carbonitride, Al₅C₃N, A., 273.

Stacy, H. S., hypochlorites as antiseptics, B., 956.

Stadeler, A., determination of arsenic in steel, pig iron, and iron ores, B., 598.

Stadie, \hat{W} . C., and O'Brien, H., carbamate equilibrium. I. Equilibrium of aminoacids, carbon dioxide, and carbamates in aqueous solution; with note on Ferguson-Roughton carbamate method, A., 289.

Stadler, A. See Simek, B. G. Stadler, F. See Fischer, H.

Stadler, P., and Meissner, I., toxin formation by bacteria. I. Stimulatory and inhibitory substances in peptones, A., 113.

and Neus, E., metabolism of Bact. coli; production of biogenic amines, A., 113. Stadlinger, H_{\bullet} , [determination of the degree

of] hydrolysis of gelatin and glue, B., Stådnik, A., determination of sulphur

dioxide in hops, B., 565.

Stadnik, P. M. See Poljakov, M. V.
Stadnikov, G. L., composition of gasoline from shale tar, B., 51. Bitumens and humic acids, B., 865.

Bakuschinskaja, L., and Putzillo, V., barzass coal, B., 624.

and Egorova, O., transfermation of fatty acids in the course of geological periods, A., 589.

and Karakasch, N., analysis of primary tars, B., 482.

Siskov, K. I., and Uschakova, A. A., humic acids, B., 4. Thermal de-composition of humic acids, B., 1186.

and Visirischvili, N., coal bitumens and humic acids, B., 306.

Stadt, H. M., and Refining, Inc., [moulded] products from cotton-seed solids, (P.), B., 1008,

Stäblein, F., and Tofante, W., testing of materials with γ -rays, B., 155. See also Berthold, R.

Staffe, A., milk at high altitudes, B.,

Stafford, C. E. See Brit. Celanese. Stafseth, H. J., control of tapeworm

infestation in chickens: pathology of the intestine of the host, B., 757.

Stage, R., colloidal silver method for nerve cells and processes, neuroglia, and microglia, A., 1572.

Stagner, B. A., sulphur dioxide and fresh sulphuric acid from [petroleum] refinery acid sludge, B., 307.

Stahel, E., and Kipfer, P., excitation of secondary γ -rays by β -rays, A.,

See also Johner, W., and Piccard, A.

Stahl, J. See Loeb, R. F.

Stahl, L., and Bischof, F., determination of chromium and tungsten in chromiumtungsten steels, B., 839.

Stahl, W., and Haring, F., use of skim milk in pig-fattening with potatoes, B.,

Stainier, C., and Massart, J., determination of carbon tetrachloride in pharmaceutical preparations, B., 218.

Penau, H., and Pierret, H., examination of pharmaceutical inositol phosphates, B., 762.

Stainsby, W. J. See Hilditch, T. P. Stair, R., and Coblentz, W. W., infra-red absorption spectra of plant and animal tissue and of various other substances,

See also Coblentz, W. W. Staker, E. V. See Wilson, B. D. Staley, H. F., enamelling of metal articles, (P.), B., 595.

Staley Manufacturing Co., A. E. See Barton, E., Bishop, W. B., French, A. H., Greenfield, R. E., Hansen, D. W., and Ragsdale, E. C.

Stålhane, J. B. See Stålhane, O.

Stålhane, O., and Stålhane, J. B., conversion of carbon dioxide contained in gases into carbon monoxide, (P.), B., 542.

Stallings, J. W., starches and starch products: application to cotton textiles, B., 662.

Stam, M. J., and Rubber-Latex-Poeder-Co. N.V., rubber product [dust from latex], (P.), B., 112. Rubber products, (P.), B., 656.

See also Rubber-Latex-Poeder-Co. N.V. Stamm, G., determination of nitrite in pickling salt, B., 452.

Stamm, J., determination of value and age of Filix drugs and extracts, B., 395.

Stammer, C. Seo Plažek, E.

Stanclova, B. See Simek, B. G.

anco, Inc. See Hofmann, H. E., McClave, J. A. E., Schuler, R., Sessions, Stanco, Inc. A. C., and Winning, C. Stancovici, N. See Maxim, N.

Standard Alcohol Co., aliphatic alcohols, (P.), B., 919.

See also Archibald, F. M., Brooks, B. T., Cardarelli, E. J., and Lebo, R. B.

Standard Brands, Inc., canning of eggs, (P.), B., 122. Leavened bakery products and compositions therefor, (P.), B., 1067.

See also Braasch, H., Broeg, W. E., Gore, H. C., Meynen, H. L. K., and Schultz, A.

Standard-I. G. Co., and Beck, E. B., treatment of carbonaceous materials [by cracking and hydrogenation], (P.),

Black, N. F., and Tilton, J. A., highly refined antidetonation motor fuel, (P.),

B., 630.

and Davis, G. H. B., production of high-grado motor fuel by destructive hydrogenation in a series of conversion stages, (P.), B., 439. Fulton, S. C., and Kalichevsky, V.,

manufacture of resins by hydrogen-

ation, (P.), B., 654. and Haslam, R. T., treatment of hydrocarbon oils, (P.), B., 86.

Herold, P., and Kaufmann, H., destructive hydrogenation of carbonaceous material, (P.), B., 582.

Hochschwender, E., and Josenhaus, M., recovery of hydrogen from gases containing hydrogen and hydrocarbons, (P.), B., 275.

Kaehler, H., and Klein, Hugo, improvement of hydrocarbons, (P.), B.,

Krauch, C., and Pier, M., conversion of solid fuels and product derived therefrom or other materials into valuable liquids, (P.), B., 8, 357, 485, 679.

and Peck, E. B., production of refined distillates from unrefined hydrocarbon

oils, (P.), B., 680.

and Pier, M., destructive hydrogenation of carbonaceous materials, (P.), B.,

Pier, M., Kroenig, W., and Simon, W., hydrocarbons, (P.), B., 86.

Standard Oil Co., and Adams, C. E., wax

recovery, (P.), B., 439.

Adams, C. E., and Voorhees, V., dewaxing of mineral oils, (P.), B.,

and Adams, E. W., insecticide, (P.), B., 38. Insect repellent, (P.), B., 862.

and Anderson, John Arthur, dewaxing of

lubricating oils, (P.), B., 439. and Atwell, H. V., separating wax from oil, (P.), B., 629. Continuous propanedewaxing [of oils], (P.), B., 630. and Bacheldor, W. H., filter-leaf struc-

ture, (P.), B., 962.

and Bahlke, W. H., refining of lubricating oils, (P.), B., 630.
Bahlke, W. H., and Stockdale, T. E.,

distillation [of lubricating oils], (P.), B., 10.

and Beale, E. B., top-cylinder lubricant, (P.), B., 9.

Beard, R. E., and Roberts, E. N., recovery of green acid soap [from oil refineries], (P.), B., 438. and Blair, F. O., acid treatment of light

mineral oil, (P.), B., 486.

Brewster, O. C., Paulus, M. G., and Thompson, A. E., continuous pressure distillation [of hydrocarbon oils], (P.), B., 262.

Brown, A. B., and Bransky, D. W., treating waste [sulphuric] acid [from petroleum refining], (P.), B., 1031.

and Brown, B. K., dewaxing [of oils] with non-miscible refrigerant, (P.), B.,

Brunstrum, L. C., and Hilliker, W. P., [plug-valve] lubricants [for steam lines], (P.), B., 309.

Brunstrum, L. C., and Schmidt, M. R., [plug-valve] lubricants [for steam

lines], (P.), B., 309.

Standard Oil Co., and Burk, R. E., conversion of gases and other hydrocarbon materials into motor fuel, etc., (P.), B., 87. Conversion of hydrocarbons, (P.), B., 485. Treatment of light petroleum distillates, (P.), B., 680.

Burk, R. E., and Hughes, E. C., motor

fuels, (P.), B., 358. and Cooke, T. S., light hydrocarbon dis-

tillation, (P.), B., 359. and Endres, A. F., sweetening of stabilised hydrocarbon naphthas and unstabilised hydrocarbon naphthas, (P.), B., 358. Sweetening of light naphthas,

(P.), B., 821.
and Frolich, P. K., production of normally liquid hydrocarbons from gaseous or lower-boiling hydrocarbon

materials, (P.), B., 583.

and McConnell, E. B., asphalt, (P.), B., 8, 583.

and MacLaren, F. H., sulphonic compound [from petroleum oil], (P.), B., 441.

MacLaren, F. H., and Bowers, G. F.,

cylinder oil, (P.), B., 358. and Musselman, J. M., dewaxing of lubricating oil, (P.), B., 681. Refining

of lubricating oil, (P.), B., 918. and Parkhurst, G. L., flame-resistant [dry-]cleaning fluid, (P.), B., 1148.

and Paulus, M. G., solvent recovery in

oil refining, (P.), B., 261. and Payne, E. H., cleaning of [metallic] filter screens, (P.), B., 352. Dewaxing, (P.), B., 1191

and Plummer, W. B., polymerisation of [unsaturated] hydrocarbon gases, (P.),

Plummer, W. B., and Voorhees, V., polymerisation of olefines, (P.), B., 87.

and Price, R. H., motor fuels, (P.), B., 359.

and Rexwinkle, F. D., [absorption] refrigeration, (P.), B., 400.

Roberts, Joseph K., and Watts, G. W., stabilisation of gasoline, (P.), B.,

and Rogers, F. M., removal of naphthenic acids from hydrocarbon oils, (P.), B., 730.

and Ruthruff, R. F., conversion of hydrocarbon gases, (P.), B., 359. Polymerisation of [olefinic] gases, (P.), B., 629. and Shoemaker, B. H., stabilised mineral

oil, (P.), B., 779. and Stiles, II. G., non-corrodible metallic

wool, (P.), B., 503. and Sullivan, F. W., jun., polymerisation of olefines, (P.), B., 777. Dry-cleaning fluid, (P.), B., 1148.

and Voorhees, V., conversion process [for hydrocarbon oils], (P.), B., 262. Light-stable insecticide, (P.), B., 757. Pickling of metals, (P.), B., 891.

Voorhees, V., and Atwell, H. V., ice, (P.), B., 223.

and Whitman, W. G., storage of volatile hydrocarbons, particularly butanes, (P.), B., 263. Conversion of hydrocarbon oils, (P.), B., 534.

and Wilson, R. E., conversion of highb.p. oils, (P.), B., 9. Conversion of high-boiling hydrocarbon oils into lower-boiling hydrocarbon oils, (P.), B., 359. Conversion of high-b.p. hydrocarbon oils into lower-b.p. hydrocarbon oils, (P.), B., 682. Removal of wax from oil, (P.), B., 820.

Standard Oil Co. of California, azeotropic drying of alcohols or ketones. (P.). B., 310.

Davis, W. N., and Holm, M. M., mercaptans, (P.), B., 971. and Edwards, S. H., pressure-still header,

(P.), B., 1190.

Farrington, B. B., and Humphreys, R. L., extreme-pressure lubricating composition, (P.), B., 918.

Halloran, R. A., and Strout, A. L., cracking of petroleum oils, (P.), B., 358.
Hamilton, W. G., Follis, R. G., and McCormick, H. P., refining of hydro-

carbon oils for removal of sulphur compounds, (P.), B., 261. and Hampton, W. H., denatured alcohol,

(P.), B., 425. Denatured ethyl esters,

(P.), B., 920. Luckenbaugh, M. L., and Radcliffe, T. D., [a ferrous metal] arc-welding electrode, (P.), B., 331.

and Muth, J. E., denaturant for fats and

fatty oils, (P.), B., 1216.

and Parker, C. K., stabilised hydro-

carbon oil, (P.), B., 630. and Rutherford, J. T., manufacture of ammonium sulphate and denaturant from acid sludges produced in the treatment of petroleum, (P.), B., 821. Securing sulphur dioxide extract of

petroleum, (P.), B., 1189.

Shiffler, W. H., Holm, M. M., and
Anderson, W. P., isopropyl alcohol
from propylene, (P.), B., 54.

Shiffler, W. H., and Mithoff, R. C., azeotropic drying of mixtures of water and alcohols or ketones, (P.), B., 537.

Thompson, Harry W., and Rutherford, J. T., apparatus for hydrolysing acid sludge, (P.), B., 1191.

Standard Oil Co. of Indiana, and Forrester, J. H., treatment of hydrocarbon

oils, (P.), B., 358.
and Hilliker, W. P., journal grease,
(P.), B., 9. Cup grease, (P.), B., 9.
Snow, H. R., and Zimmerman, R. L.,

conversion of hydrocarbon oils, (P.), B., 682.

and Steininger, H. M., asphalt emulsions, (P.), B., 85.

Standard Oil Co. of Ohio, lubricating oils,

(P.), B., 261.

Standard Oil Development Co., lubricating greases, (P.), B., 9. Hydrocarbon compositions, (P.), B., 54. Lubricating oils, (P.), B., 439. Lubricants and other hydrocarbon products, (P.), B., 439. [Oxidation inhibitors for] lubricating oils, (P.), B., 439. Lubricating compositions, (P.), B., 486. Emulsification of oils, (P.), B., 584, 629. [Scoops for skimming in the] centrifugal separation of materials, (P.), B., 624. Centrifugal de-waxing of oils, (P.), B., 629. Hydration of olefines, (P.), B., 823. Wetting agents and detergents, (P.), B., 823. Lubrian detergents, (P.), B., 823. cating oil compositions, (P.), B., 869. Motor fuels, (P.), B., 869. Treatment of hydrocarbon material with light hydrocarbons, (P.), B., 917. Stabilisation of polymerised oils and acids and esters obtained therefrom and of lubricants containing such polymerides, (P.), B., 970. Separation of waxy constituents from hydrocarbon oils, (P.), B., 1139. Polymerides of olefines, (P.), B., 1191.

Standard Oil Development Co., and Archibald, F. M., dust fixative [for roads], (P.), B., 597.

Archibald, F. M., and Janssen, P., purification of acid-treated light hydrocarbon oil, (P.), B., 778.

and Baskin, C. M., cold mix and coldlaid bituminous paving mixture, (P.), B., 500. Asphalt to duplicate rapidsetting coal tars, (P.), B., 822.

and Berne-Allen, A., jun., dewaxing of oils, (P.), B., 10. Low cold-test oil, (P.), B., 779.

and Bird, J. C., clarification of liquids and production of useful [liquid]

products, (P.), B., 816. and Buc, H. E., separation of formic acid from other fatty acids, (P.), B., 264. Prevention of corrosion, (P.), B., 796. Insectioidal oil, (P.), B., 950.

and Clendenin, E. H., production of steam and water [for petroleum oil refinery purposes], (P.), B., 682. and Cowan, R., centrifugal separation,

(P.), B., 129.

and Doherty, W. T., cleaning composition, (P.), B., 630.

and Edson, F. H., recycling of cracking [hydrocarbon] oil, (P.), B., 262. Cracking of hydrocarbon oils, (P.), B., 1190

and Ellis, C., soap powder, (P.), B., 461. Lubricating composition, (P.), B., 1080. and Fischer, H. G. M., organic disulphides, (P.), B., 683.

Fischer, H. G. M., and Gustafson, C. E., [low-boiling, non-viscous] hydrocarbon oil, (P.), B., 680.

and Freyermuth, G. H., catalyst for use in manufacture of hydrogen, (P.), B., 102.

and Frolich, P. K., rubber composition containing asphaltene, (P.), B., 896. Esters, (P.), B., 920. Pour-inhibitors [for lubricating oils], (P.), B., 1139.

Frolich, P. K., and Miller, F. L., alcohol denaturant, (P.), B., 296. Denaturant for alcohol and its preparation, (P.), B., 296.

Frolich, P. K., and Pugh, J. W., separation of hydrocarbons and their oxygen-containing derivatives, (P.), B., 584.

Frolich, P. K., and Wlezevich, P. J., halogenated ketones, (P.), B., 824. Acetylation of liquid aliphatic polyhydroxyaliphatic alcohols by means

of a keten, (P.), B., 1032. and Fulton, S. C., treatment of hydrocarbon oils with formaldehyde, a condensing agent, and acetic acid,

(P.), B., 630. Fulton, S. C., and Kunc, J., aluminium chloride synthesis of resins, (P.), B., 1218.

and Gomory, W. L., apparatus for treating hydrocarbons to obtain highgrade lubricating oils and lighter hydrocarbons, (P.), B., 682. and Goodwin, R. T., removal of ash-

forming components from crude petrol-

eum oil, (P.), B., 680.

Hanks, W. V., Freyermuth, G. H., and Potts, G., apparatus for production of hydrogen, (P.), B., 1207.

and Harris, J. M., treatment of lubricating oils, (P.), B., 822.

and Hillman, C. A., cracking of oil with accumulation under pressure, (P.), B., 534.

Standard Oil Development Co., Howard, F. A., Shepard, D. A., and Fisher, H. W., oil filter, (P.), B., 359.

Huffman, J. R., and Whiteley, J. M., jun., mercaptan purification, (P.), B., 441.

and Kuhl, P. E., carrying out chemical reactions, (P.), B., 1184. and Lewis, W. K., cracking of residual oils, (P.), B., 533. Distillation of casily decomposable materials, (P.), B., 1184.

Lewis, W. K., and Mead, B., [nongumming] hydrocarbon oils, (P.), B., 358.

and Loomis, N. E., pyrolysis of petrol-eum oils, (P.), B., 9. Refining of [hydrocarbon] oils, (P.), B., 485. and Mead, B., distillation of acid-treated

oils, (P.), B., 821.

Rosen, R., and Lieber, Eugene, conversion or organic sulphur compounds [in natural or cracker gases] with ferrous sulphide, (P.), B., 228.

and Packie, J. W., internal stripper for bubble towers, (P.), B., 673.

and Seaman, IV., thio-ethers from mercaptans, (P.), B., 264. Pyroxylin solution, (P.), B., 1109. Seaman, W., and Matheson, G. L., rubber solvent, (P.), B., 339.

and Shepard, D. A., catalyst roasting plant, (P.), B., 145.

Spencer, A. C., and Luster, E. W., apparatus for cracking of oil, (P.), B., 9. and Starr, J. V., solvent extraction of petroleum distillates, (P.), B., 682.

and Stines, D. E., rectifying process, (P.), B., 352.

and Stratford, R. K., treatment of [hydro-

carbon] oils, (P.), B., 730.

Stratford, R. K., and Leaver, C., continuously using clay in treating [hydrocarbon oils in] tower systems, (P.), B., 262.

and Sydnor, H., cracking [of hydrocarbon oils], (P.), B., 262. Cracking

of oil, (P.), B., 534.

and Wells, A. A., asphalt and product thereof, (P.), B., 583.

and Whiteley, J. M., jun., separation of hydrocarbon mixtures into constituent parts, (P.), B., 820.

and Wiezevich, P. J., sectional fractionating column, (P.), B., 673.

Wiezevich, P. J., and Gleason, A. H., polymerides of ketcn, (P.), B., 442.

and Winning, C., wax coating com-

position, (P.), B., 630.

Wise, C. R., and Edwards, D. F.,
[fluorescent] resins [from tars], (P.), B., 1109.

and Young, P. L., obtaining products from hydrocarbon oils, (P.), B.,

Standard Telephones & Cables, Ltd., and Ellis, W. C., magnetic dust cores, (P.), B., 504.

and McNally, J. O., electron-discharge devices, (P.), B., 203.

and New, A. A., electric insulating materials, (P.), B., 940.

and Ronci, V. L., [supporting assembly for electrodes of] electron-discharge devices, (P.), B., 507.

and Veazie, E. A., electron emitters for [high-frequency] electron-discharge devices, (P.), B., 203.

and Webb, J. K., electrical insulating material [from polymerised styrene], (P.), B., 1213.

Standard Varnish Works. See Verbyla, A. E.

Standel, E. G., titanium. II. Decomposition of titanomagentite concentrate with dilute sulphuric acid, A., 690.

See also Pamfilov, A.V.Standfast, A.F.B. See Wooldridge, W.R.Stanek, V., and Kminek, M., cause of presence of oxalates in [sugar-juice] evaporator scale, B., 165.

Stanescu, P. P., daily variations in products of photosynthesis, water content, and acidity of leaves towards the end of the vegetative period, A., 1570.

Stang, V. See Bünger, H. Stanganelli, M. See Rossi, Giacomo. Stanger, D. W. See Kharasch, M. S.

Stanger, H. See Emmert, B.
Stanger, R. H. H., and Woodcock &
Mellersh, analysis of concrete, B., 499.

Stanier, H. See South Metropolitan Gas Co. Stankoff, E. See Santenoise, D.

Stanley, C. M., economics of water softening, B., 575.

Stanley, W. M., virus of tobacco mosaic.

IV. Effects of different chemical agents on infectivity. V. Optimum p_H for purification by precipitation with lead accetate. VII. Preparation of crystalline tobacco-mosaic virus protein, A., 258, 1562. Inactivation of crystalline tobacco-mosaic virus protein, A., 1156.

and Loring, H. S., isolation of crystalline tobacco mosaic virus protein from diseased tomato plants, A., 525.

Stanley, W., and Markovich, S., calcium arsenate as a control measure for tobacco flea beetle and hornworm, B., 661.

Stanley-Brown, M. See Chargaff, E. Stanly, G. H. See Hammer, B. W. Stannard, J. N. See Stier, T. J. B.

Stanoyévitch, L., and Petkovitch, S., bloodammonia during ether narcosis in man, A., 1552

Stansby, M. E., analysis of fish. I. Tests for condition of oil of fish flesh, B., 168. and Griffiths, F. P., [use of] carbon dioxide in handling fresh fish; haddock, B., 168.

Stansel, N. R. See Gen. Electric Co. Stansfield, E., Lang, W. A., and Gilbart, K. C., oxidisability of coal, B., 258. Stansfield, R. Sec Birch, S. F., and

Boerlage, G. D.

Stantial, H., sporulation of yeast. II., A., 522.

Stanton, D.J. See Askew, H.O.Stapelfeldt, F., carbon blacks for the rubber industry, B., 1057.

Staples, H. A., and Phelps Dodge Copper Products Corp., annealing furnace, (P.), B., 458, 646. Copper-zinc alloy containing silicon and iron, (P.), B., 504.

Staples, L. W., microchemical test for silicon, A., 1082.

Staples, M.L. See Schierholtz, O.J.Staples, R. R., pasture research, B., 665. Stapleton, V. See Texas Co.

Stapp, C., and Bortels, H., microbiological examination of decomposition of forest litter. II. Tannin-decomposing organisms, B., 210.

Star Oil Refining Corporation. See Duffy, G. R.

Starck, J. D. See under Mining & Industrial Works.

Stare, F. J., preparation and nutritional value of hepatofiavin, A., 119. Potentiometric study of hepatoflavin, A., 227.

Stareck, J. E., and Taft, R., production of colour [on metals] by electrolysis, B., 377. Stargardter, A. R., coloring and hardening

steel, (P.), B., 376. and Gillette Safety Razor Co., bimetallic spring, (P.), B., 238.

Stark, C. N., and Curtis, L. R., evaluation of certain media for detection of colon organisms in milk, B., 567.

Stark, J., Ritschl, R., and Bomke, H., effect of magnetic field on the polarisation of stationary and moving light emission of positive rays, A., 915.

and Schön, M., dependence of polarisation of light emission of positive rays [on pressure, otc.], A., 915.

See also Scheffers, \bar{H} .

Stark, M., pleochroic (radioactive) haloes, their distribution in rocks and variability, A., 1226.

Stark, R. E. See Hobart Manufg. Co. Stark, U., corrosion in the sugar industry,

B., 424. Starke, K. See Täufel, K.

Starkenstein, E., physiology and pharma-cology of sterols. I. Cholesterol and sterol economy, A., 1551.

and Hendrych, F., physiology and pharmacology of sterols. II. Significance of cholesterol in permeability and absorption, A., 1551.

and Weden, H., physiology and pharma-cology of sterols. IV. Influence of cholesterol on the action of hypnotics and narcotics. V. Influence of cholesterol mobilisation by saponin on the action of soporifies, A., 1551. Starkey, R. L. See Lipman, J. G.

Starling, L. See Batchelder, E. L.

Starmann, G. H., and Apex Smelting Co., die-casting [zinc-base] metal alloys, (P.), B., 938.

Starobinetz, G. See Glusmann, M.

Starokadomskaja, E., saturation pressure of ammonia in the thermal decomposition of zino chloride diammine, A., 798. Starr, A. T. See Arman, A. N.

Starr, D., and Richardson, C., toxicity of d- and l-a-p-tolylpyrrolidine to Aphis rumicis, L., B., 1117.

Starr, D. F., biochemistry of sluggish butyl alcohol-acetone fermentations, B., 425. Starr, J. V. See Standard Oil Development

Co. Starr, L. E., and Snider, G. E., serologic relation of Brucella and Pasteurella, A., 1402.

Starr, M. A. See Brode, R. B. Stary, Z. See Nonnenbruch, W.

Staryzyna, T. V. Sce Lazarev, N. V.

Stasiw, O., thermal diffusion of colour centres, A., 137. Rate of migration of cations in alkali halide crystals, A., 138. Thermo-electric potentials crystals with colour centres, A., 938.

Staszewski, H. See Hrynakowski, K. State, H. M., preparation of diphenylamine

indicator solution, A., 1081. Statham, F. S. See Kenner, J.

Stather, F., and Herfeld, H., effect of nontans on properties of vegetable-tanned leathers, B., 70. Effect of delayed curing of raw hide on the curing process

and the finished leather, B., 804. and Lauffmann, R., rate of combination of vegetable tannins with hide substance, B., 70. Corrosion of metals by free fatty acids and deterioration of [vegetable-tanned] leather by metallic soaps, B., 162.

Stather, F., and Lauffmann, R., vegetable tannins. XI. Solubility numbers for differentiating vegetable tanning extracts, B., 1058.

Lauffmann, R., and Miau, T. B., solubility of vegetable tanning extracts in organic solvents and aqueous mixtures thereof and tanning properties of the solutions, B., 512.

and Schubert, R., vegetable tannins. X. Degree of dispersion of vegetable tanning extract solutions and its effect on tannin properties, B., 947.

Stathis, E. C. See Dalmas, D. C.

Staub, A. See Ruggli, P. Staub, H., separation of β - and γ -radiation of radioactive preparations, A., 1440. and Golandas, G., physiology of blood-glycogen. II., A., 496. See also Mezey, K., and Scherrer, P.

Stauber, J., maturing of beer and its acceleration, B., 1228.

Stauber, M. See Darapsky, A. Staud, C. J. See Eastman Kodak Co.,

and Kodak, Ltd.

Staudinger, H., highly polymerised compounds. CIII. Application to biology of investigations on constitution of highly polymerised compounds. CXX. Formation of high polymerides of unsaturated substances. CXXX. Conception of mol. wt. of simple and complex compounds. CXXXV. [Viscosity of solutions of aliphatic hydrocarbons]. CXXXX. Development of macro-molecular chemistry, A., 146, 295, 309, 534, 562, 818. Poly-

merisation products, (P.), B., 608. [with Heuer, IV., and Husemann, E.], highly polymerised compounds.

CXXI. Insoluble polystyrene, A., 324. and Dreher, E., highly polymerised compounds. CXXXVIII. Tearing of the thread molecules of cellulose by grinding. CXLII. Lignin, A., 828, 1116.

Dreher, E., and Ekenstam, A. af., highly polymerised compounds. CXXXIX.

Grinding of wood, B., 635.
and Eilers, H., highly polymerised compounds. CXXXVI. Structure of pounds. CXXXVII. Macro-molecular starch. structure of lichenin, A., 710.

and Frost, W., highly polymerised compounds. CXXIX. Polymerisation

as chain reaction, A., 146.

Kern, W., and Herrera, J. J., highly polymerised compounds. CXXVIII. Abnormal mol. wts. of highly complex

compounds, A., 146.
and Lohmann, H., highly polymerised compounds. CXXV. Mol. wt. determinations with highly complex poly-

ethylene oxides, A., 146.

and Mojen, H. P., isoprene and rubber. XLIV. Viscosity measurements with solutions of squaleno and hydrosqualene. XLV. Viscosity measurements on solutions of caoutchouc and hydrocaoutchouc in different solvents, B., 803, 945.

and Moser, H., highly polymerised compounds. CXXXIII. Viscosity of solutions of glycol esters and di-

carboxylic esters, A., 314.

and Rössler, K., highly polymerised compounds. CXXIII. Measurements of viscosity of aliphatic amines with long chains. CXXIV. Measurements of viscosity of amides and anilides of fatty acids, A., 319, 320.

Staudinger, H., and Schulz, G. V., highly polymerised compounds. CXXVI. Comparison of osmotic and viscosimetric methods of determining mol. wt. in polymeric homologous series. CXXVII. Osmotic determinations in solutions of rod-like and spherical particles, A., 146.

Staudinger, H. P., cellulose ester compositions and articles produced therefrom, (P.), B., 880.

See also Distillers Co.

Stauff, J. See Thiessen, P. A. Stauffer, C. H. See Bartlett, P. D., and Brearley, D.

Stauffer, R. S., influence of parent material on soil character in a humid, temperate climate, B., 657.

Staunau, H. See Lettré, H. Staveley, H. E., Christensen, L. M., and Fulmer, E. I., yeast zymin. I. Effect of electrolytes on carbon dioxide production. II. Effect of ethanol on production of carbon dioxide. III. Effect of electrolytes, and of ethanol, on phosphate content during fermentation, A.,

Staveley, L. A. K., and Hinshelwood, C. N., inhibition of homogeneous reactions by small quantities of nitric oxide, A., 167. Catalysis and inhibition of a homogeneous gas reaction; influence of nitrio oxide on the decomposition of diethyl ether, A., 803. Detection of reaction chains by small amounts of nitric oxide; thermal decomposition of acetaldehyde and of propaldehyde, A., 939.

See also Hinshelwood, C. N.

Stay, T. D., recommended practice for [casting] common aluminium-copper alloys, B., 890.

Steacie, E. W. R., and Calder, D. S., homogeneous unimolecular decomposition of gaseous alkyl nitrites. Decomposition of methyl nitrite at low pressures, A., 568.

and Elkin, E. M., catalysis by fusions, A., 685.

Hatcher, W. H., and Rosenberg, S., kinetics of decomposition of ethyl

ether at high pressures, A., 568. Katz, S., Rosenberg, S., and Smith, W. McF., homogeneous unimolecular decomposition of gaseous alkyl nitrites. VII. Effect of chemical configuration on the reaction rate, A., 1208.

and McCubbin, J. IV., decomposition of nitrous oxide on surface of platinum. II. Effect of foreign gases, A., 807.

and McDonald, R. D., kinetics of oxidation of gaseous hydrocarbons. III. Oxidation of acetylene, A., 294.

and Phillips, N. W. F., reactions of deuterium atoms with methane and ethane, A., 1344.

and Rosenberg, S., decomposition of methyl nitrite at high pressures, A., 568.

and Shaw, G. T., homogeneous unimolecular decomposition of gaseous alkyl nitrites. IV. Decomposition of

isopropyl nitrite, A., 33. and Smith, W. McF., homogeneous unimolecular decomposition of gaseous alkyl nitrites. VI. Decomposition of

n-butyl nitrite, A., 1344.
Stearn, A. E., and Eyring, N., nonadiabatic reactions: decomposition of N₂O, A., 163.

Stearn, N. H., cinnabar deposits in S.W. Arkansas, A., 700. Stearns, G. See Warweg, E.

Stearns, H. A. See Dow Chem. Co.

Stearns, J. C., and Froman, D. K., variations of properties of cosmic shower radiations with altitude, A., 542.

Stearns, R. P., production of sugar in Barbados about 1667, B., 564.

Stearns, IV. V. See Alco Products, Inc. Steatit-Magnesia Akt.-Ges., electron-discharge tubes, (P.), B., 460. Steatite ware, (P.), B., 933.
Stebnitz, V. C., and Sommer, H. H.,

age-thickening of sweetened condensed milk. I. Seasonal variation. II. Effect of forewarming conditions. III. Effect of reaction and changes in electrical conductivity during manufacture and

ageing, B., 664. Stecher, J. L. Sco Du Pont de Nemours

& Co., E. I.

Steck, L. V. See Shell Development Co.

Steckel. F., condensation and b.p. curves of nitrogen-carbon monoxide mixtures up to 17 atmospheres, A., 558.

Steckler, (Miss) S. See Shereshefsky, J. L. Stedman, D. F., packing for fractionating columns, etc., (P.), B., 963.
Stedman, E. See Russell, W. R.

Stedman, Edgar, and Stedman, (Mrs.) Ellen, purification of choline-esterase, A., 110.

See also Easson, L. H.

Stedman, (Mrs.) Ellen. See Stedman, Edgar.

Steedman, R. T., current trends in sulphite [-pulp] digester operation, B., 490. Sulphite[-pulp] requirements for highspeed news machines, B., 1086. Steel, E. W., and Zeller, P. J. A., chemical

treatment of sewage at Dallas (Texas) B., 221. Chemical precipitation of sewage, B., 526.

Steel Brothers & Co., Ltd., and Gibbon, S. H., treatment of rice, (P.), B.,

Steele, E. F., separate [sewage] sludge digestion at Birmingham, Tame, and Rea District Drainage Board's Yardley works, B., 301.

Steele, F. A. See Haslam, J. H. Steele, J. M. See Cohn, A. E.

Steele, S. See Imperial Chem. Industries. Steenbeck, M., magnetic properties of the plasma of gas discharges, 1057.

Steenbergen, B. van, application of the dielectric constant to examination of pharmaceutical products, B., 347.

Steenbock, H. See Feldman, H., Gorcica, H. J., Haman, R. W., Ingraham, M. A., Lowe, J. T., Quackenbush, F. W., Thomas, B. H., and Weckel, K. G.

Steenken, W., influence of pH on dissoci-ation of B. Friedlander and M. tuberculosis, A., 1423.

Steensholt, G.; potential curves of the hydrogen molecule ion, A., 925.

Steer, W., Byturus tomentosus, Fabr. V. Control of raspberry and loganberry beetle, B., 37. Use of derris root as an insecticide, B., 899. Codling moth (Cydia pomonella, L.), B., 899.

and Thomas, F. J. D., control of apple-blossom weevil and of apple sawfly in 1934, B., 37.

Steet, W. R., rapid method of saponification, B., 1214.

Stefanovski, A., Tatarski, E. S., and Seljakov, N., dependence of structure of an ammonia catalyst on conditions of its reduction, A., 168. See also Seljakov, N.

Stefansson, V., meat diet: blood as an antiscorbutic factor, A., 1429.

Steffens, W., effluent problems in the pulp and paper industry, B., 718.

Steffensen, N. J., seaweed industry, B.,

Steff, J., standardisation of insulin, A., 1159.

Stegeman, G. Sec Furtsch, E. F., and Haas, E. G.

Stegeman, R. A., and Englis, D. T., use of cerie sulphate in determining cuprous oxide obtained by reducing sugars on Fehling's solution, A., 43. Determination of cuprous oxide as applied to sugar analysis, B., 1063.

Steger, A., and Loon, J. van, polymerisation of fatty oils. XI. Hydrogenation of polymerised ethyl linoleatc, A., 189. Jaboty fat, B., 158. Polymerisation of fatty oils; polymerisation of ethyl $[\beta$ -]elæostearate, B., 378. Essang oil, B., 607.

Steggerda, F. R., variation in water content of the facal material along the colon, A., 229.

Essex, H. E., and Mann, F. C., inactivation of histamine in perfused organs, A., 250.

See also Jones, M. E.

Stehle, R. L., method for obtaining a preparation of the melanophore hormone of the pituitary gland, A.,

and Fraser, A. M., purification of the pressor and oxytocic hormones of the pituitary gland: chemistry of the products, A., 643.

Melville, J. I., and Oldham, F. K., choline as a factor in elaboration of adrenaline, A., 890.

Stehli, H. J., treatment of wet sewage sludge, (P.), B., 1238.Stehr, C. N., and Tretolite Co., breaking of

[water-in-oil-type] petroleum emulsions, (P.), B., 868.

Steiger, (Frl.) M., preparation of d-ribose, A., 592.

and Reichstein, T., two crystalline d-talomucolactones, A., 591. d-Psicosc, A., 592. Crystalline isopropylidened-threose and simple preparation of d- and l-threose, A., 1364. d-Diisopropylidenealtrose, A., 1365.

Steigmann, A., sensitive reaction for phosphate, A., 442. Reactions of cystine and materials containing cystine, A., 873. Relation between emulsion technique and analytical and organic chemistry, A., 1281. Yellow film of photographic emulsions, B., 220. Peptisation emulsions, B., 220. Light-sensitive polysulphide colloid system, B., 220. Retardation of reduction [of photographic images] by substances hindering crystallisation, B., 349. Rôle in photographic emulsions of ripening inhibitors present in gelatin, B., 395. Chemistry of inhibitors, B., 429. Photographic ripening accelerator and sensitive analytical reagent, B., 621. Inhibitors of gelatin and ago of animal, B., 805. Mercury salts in photographic emulsions, B., 909. Green and brown developing emulsions, B., 909.

Steil, O., dispersion of sound and stereochemistry of nitrogen atom, A., 555.

Steil, W. N., modified Wright's method for staining blood smears, A., 1307. Stein, G. See Alder, K.

Stein, J., stable histochemical reaction for detection of bilirubin, A., 228.

Stein, Jacob, rubber material, (P.), B., 1169. and Mosher, H. H., rubber and rubberised sanitary garment, (P.), B., 1169. Stein, K., properties of free-cutting steels,

B., 1156.

Stein, O. See Bruson, H. A. Stein, R. See Brunner, O.

Stein & Atkinson, Ltd. See Atkinson, J. S. Stein, Hall & Co., Inc. See Baker, W. E. B.,

and Bosland, H. S.
Steinbach, H. B., diffusion potentials in colloidal systems, A., 794. Diffusion potentials in scallop muscles, A., 877.

Steinbach, M. M., and Rosenblatt, M. B., vitamin therapy in intestinal tuberculosis, A., 367.

Steinberg, A. See Rowntree, L. G. Steinberg, F. See Antropoff, A. von. Steinberg, H. See Klemm, W.

Steinberg, R. A., nutrient solution purification for removal of heavy metals in deficiency investigations with Aspergillus niger, A., 382. Relation of accessory substances to heavy metals, including molybdenum, in the nutrition of Aspergillus niger, A., 1026.

Steinberg, S. S., transformations of austenite, B., 743.

Steinbrück, P., polypeptidases exercted in the urine of health and disease, A.,

Steiner, A., and Cori, C. F., preparation and determination of trehalose in yeast, A., 246.

Steiner, A. B. See Leighton, P. A.

Steiner, C., solubility in water and washing [action] of sulphuric esters of unsatur-

ated fats, B., 158. Steiner, D., "granite" cement; Portland cement from limestone and granite, B., 372. Calcium chloride admixtures and the early strength of cement, B., 836. Refractory linings for cement kilns, B., 1041.

Steiner, H. See Gross, P.

Steiner, J. F., and Meloche, V. W., ligneous substances in lacustrine materials, A.,

Steiner, L., viscosimetrical inspection of lubricating oil in service, B., 729.

Steiner, M., histochemical detection of

sodium in plants, A., 125.

Steiner, W. See Hilferding, K., and Salow, H.

Steiner, Walter, conservation of green fodder by the Virtanen process, B., 346. Steiner, W. L. See Lincoln, B. H. Steines, H. A. See Ullrich, B. Steinfeldt, H., vertical chamber ovens for

producing gas and coke, (P.), B., 967.

Steinfoorn, J. van. See Brinkman, R. Steingiesson, F., production of drinkingwater from sea-water, (P.), B., 1182.

Steinhäuser, A., polarisation of resonance radiation from calcium and effect of weak

magnetic fields, A., 654. Steinhäuser, K., and Ginsberg, H., colorimetric determination of iron with thio-

cyanates, A., 696. Steinhardt, J., inactivation of crystalline pepsin, A., 1152.

Steinhardt, R., evaluation of whole, crushed, and rough-ground oats, B., 344.

Steininger, H., and Gaubatz, E., comparative actions of cardiazole and coramine on respiratory centre of man. I. Subcutaneous injection, A., 515.

Steininger, H. M. See Standard Oil Co. of

Indiana.

Steinkopf, W., and Günther, E., thiophen series. XXXI. Preparation of thiophen analogues of acridone and fluorenone, A., 617.

and Köhler, W., thiophen series. XXX. Derivatives of 2:27-dithienyl and aaa-

tetrathicnyl, A., 611.

Rösler, R., and Setzer, L., thiophen series. XXXII. Mercuration of bromo- and iodo-thiophens, A., 619.

Steinle, J. V., carnauba wax: an expedition to its source, B., 1107.

Steinmann, A., tea adulteration in India; tea substitutes, B., 905.

Sce also Jäppelt, A. Steinmaurer, R. See Hess, V. F.

Steinmetz, H., and Alt, M., thermoluminescence and chemiluminescence, A., 778.

and Gisser, A., spectrum of thermoluminescence of fluorite, A., 548.

Steinwehr, H. von, and Schulze, A., heat effect of metallic transitions. IV. Nickel, A., 1452.

Stekol, J. A., determination of p-bromophenylmercapturic acid in urine of the dog, A., 503. Sulphur metabolism of the dog and pig, A., 756.

Stella, G., reflex regulation of respiration from the carotid sinus, A., 1134.

See also Samaan, A.

Stellwaag, F., control of cherry fly, B., 423. Stemen, W. R. See Urbain, O. M. Stempfli, J. G. See Hartman, W. W.

Stenbuck, F. A. See Malisoff, W. M. Stender, V. V., Andreev, P. I., Kinkulskaja, R. N., and Bissenok, E. P., performance of asbestos diaphragms under varying working conditions of commercial electrolytic cells, B., 1050.

Andreev, P. I., Sergeev, E. A., and Kinkulskaja, R. N., tests of asbestos diaphragms in commercial cylindrical

electrolytic cells, B., 1050. Mamulov, S. A., and Ravitsch, M. I., properties of asbestos-board diaphragms, B., 1050.

Ravitsch, M. I., Mamnlov, S. A., Shornitzki, I. G., Maslov, J. K., and Aronson, E. M., formation of asbestos

diaphragms during electrolysis, B., 1050. Stene, J. See Schmidt-Nielsen, Sigval.

Stene, S., isohydric indicator method [for $p_{\rm H}$ determination], A., 1351. Determination of iron and manganese in water, B., 254.

Stenger, P. A. See North Brit. Rayon, Ltd. Stengl, R. J. See Davis, S. H. Stenkhoff, R. See Püngel, W.

Stenström, W., and Street, H. R., effect of X-rays on methylenc-blue and on trimethylthionine, A., 775.

Stenzel, R. W., determining the resistance of Portland cement to sulphate waters;

accelerated test, B., 885.

Stenzl, H., Fichter, F., and Arni, H.,
Tafel rearrangement. II. Electrochemical reduction of ethyl cyclopentanonecarboxylate, A., 604.

See also Fichter, F. Steopoe, A., action of carbon dioxide on

hardened cement, B., 545. Stepanenko, B. N. See Stepanov, A. V.

Stepanenko, M. A., and Tzukerman, L. E., petrographic factors which affect coking properties of coal, B., 82. See also Nikolski, N. A.

Stepanov, A. V., plastic properties of silver chloride and sodium chloride single crystals, A., 18.

and Stepanenko, B. N., active form of monosaccharides. I. Reactivity of triphenylmethylglucose, A., 1365.

Stepanov, B., fine structure of metastable

level of nitrogen, A., 537.
Stepanov, N. L., and Bulach, S. A., velocity of transformation in cadmiummagnesium alloys in the region of com-

position MgCd, A., 419. Stepanova, (Miss) E. See Skobelzyn, D. Stephan, F. C., and Telegraph Condenser Co., dielectric materials, (P.), B., 107. Electrolytes for use in electrolytic condensers, (P.), B., 203.

See also Gwinn, C. D., and Telegraph Condenser Co.

Stephan, H., ionisation steps and excitation energies of spectral lines according to emission distribution in the arc light,

Stephen, R. A., and Barnes, R. J., new technique for obtaining X-ray powder patterns, A., 45, 697.

Stephens, B. A. See Goodeve, C. F. Stephens, D. J., and Hawley, E. E., partition of reduced ascorbic acid in blood, A., 1530. See also Hawley, E. E.

Stephens, G. O., and Evans, E. J., magnetic susceptibilities of the silver-lead, silverantimony, and silver-bismuth series of

alloys, A., 1332.

Stephens, H. N., autoxidation. V. Induction period in autoxidation, A., 434. and Rodnta, F. L., oxidation in benzene series by gaseous oxygen. V. Oxidation of tertiary hydrocarbons, A., 324.

Stephens, J. V. See Wilson, G. V. Stephens, W. E., elastic scattering of fast electrons in mercury and agreement with Mott's theory, A., 1170.
Stephenson, A. B. See Platt, C. S.

Stephenson, D. See Buttle, G. A. H. Stephenson, G. E., fused silica: its recent development and applications, B., 594.

Stephenson, H. P., distillation and carbonisation of mixtures of oil with coal or similar carbonaceous material, (P.), B., 776. Catalysts for liquid- and vapour-phase hydrogenation processes, ammonia, and methanol [methyl alcohol] synthesis processes, and other industrial purposes, (P.), B., 1092. Distillation and carbonisation of coaloil mixtures, (P.), B., 1138. and Curtis, A. L., benzene hexachloride,

(P.), B., 733.

and Israel, R. G., semi-coke or coke [from lignite], (P.), B., 819. Olefine gases, (P.), B., 969.

Stephenson, M., and Yudkin, J., galactozymase as an adaptive enzyme, A., 638. Stephenson, R. E., nitrification process [in soils] and plant nutrition, B., 513.

Stephenson, R. J., fluorescence X-ray yields

from K shells of atoms, A., 262.

Stephenson, S. T., K X-ray absorption spectra of some compounds of bromine and rubidium, A., 656.

Stepp, W., Schroeder, H., and Altenburger, E., vitamin-C and blood-sugar, A., 647. Steps, H., X-ray fluorescent screens, A., 1480.

Sterky, G. See Tigerschiold, K. M. Sterling Batteries, Ltd. See Reynolds, J. W. H.

Sterling Engine Co., apparatus for measuring and indicating the viscosity of liquids, (P.), B., 400. See also Powis, R.

Stern, A., and Deželić, M., fluorescence of porphyrins. III., A., 1048.

and Molvig, H., fluorescence of porphyrins. I. and II., A., 270, 778.

Optical absorption of porphyrins. VIII., A., 1444.

and Thalmayer, K., Raman spectrum of pyrrole and some derivatives, A., 546. Wenderlein, H., and Molvig, H., optical absorption of porphyrins. III., V., VI., and VII., A., 8, 545, 662, 1178.

See also Pruckner, F. Stern, E., wool fat in chlorinated rubber

paints, B., 1055. Stern, I. See Nekrassov, N.

Stern, K. G., constitution of the prosthetic group of catalase, A., 378. Mode of combination of an enzyme with an adsorbent and with a substrate, A., 518. Mechanism of enzyme action; decomposition of monoethyl hydrogen peroxide by catalase and of an intermediate enzymesubstrate compound, A., 1023.

Stern, M. See Röben, M.

Stern, O., general principles of predeter-mination of strength of concrete, B.,

Stern, R. O. See Findlay, G. M. Sternbach, L. See Dziewoński, K.
Sternberg, E. J. See Kritschevski, I. L.
Sternberg, H. See Friedrich, A., and Späth, E.

Sternberg, W. M. See Epstein, A. K. Sternberger, H. R. Seo Hunscher, H. A. Sterner, J. H., and Medes, G., effect of sulphur compounds on blood coagulation, A., 1531.

Sternzat, N. See Skirstimonski, A. O. Stetkiewiez, S. See Celarek, J.

nitroisobutylglyceryl Stettbacher, A., preparation and explosive nitrate; properties, B., 173. Explosive action of

hexogen and penthrite, B., 396. Stetter, G., capacity of the elements for disintegration, A., 265. Excitation of tho 170 nucleus, A., 919.

See also Schintlmeister, J.

Steubing, W., new investigations of helium and hydrogen lines with crossed electric and magnetic fields, A., 127. Simultaneous action of electrical and magnetic fields on line spectrum of helium, A., 915.

and Kindler, H., Stark effect in neon, A., 653, 1039.

and Schaeder, J. A., "bright" method for investigation of Stark effect with a homogeneous field, A., 262.

Steude, R. See Boas, F.
Steudel, H., crystalline hypoxanthine
A., 85. Digestibility of food-stuffs, A., Variations in contents of some of constituents of ash of potatoes, A., 650. Nucleic acids of the pancreas. II. alloNucleic acid, A., 1138. Structure Structure of simple nucleic acids. IV. Determination of furfuraldehyde in pyrimidyl acids, A., 1282.

Steuernagel, E. See Darapsky, A. Steulmann, G. See Heiduschka, R. Steurer, E., optical absorption of substituted benzenes, A., 8.

Stevens, A. H., and Firth-Stirling Steel Co., hard cemented carbide material, (P.), B.,

Stevens, C. F. B., and Birchard, W. H., liming of [sulphite-pulp] digesters, B.,

Stevens, C. G. See Piper, C. S. Stevens, D. R., Grusc, W. A., and Gulf Refining Co., petroleum product, (P.), B., 730. Compound catalyst [for petroleum reactions], (P.), B., 777.
Refining of cracked petroleum products, (P.), B., 1080.
See also Payne, C. R.

Stevens, G. A., capacity of duodenum to neutralise, to buffer, and to dilute acid, A., 1537.

Stevens, Harland. See Fifield, C. C. Stevens, Harold, processing of coal, (P.), B., 357. Carbonisation of coal with electricity, B., 1026.

Stevens, *Henry*, food allergy, A., 1146. Stevens, H. E. See Traub, H. P.

Stevens, H. P. See Rubber Producers Res. Assoc.

Stevens, J. W. See Pascoe, T. A. Stevens, M. F. See Glenny, A. T.

Stevens, R. E., nephelometric determination of fluorine [in minerals], A., 1081. Stevens, S. G. E. See Sage, C. E.

Stevens, T. B., re-treatment of cyanide tailings from the Golden Horseshoe

Mine, B., 794. Stevens, T. S. See McFadyen, J. S. Stevens, W. H., natural stabilisers of latex.

B., 31. Stevenson, A. B. See Imperial Chem. Industries.

Stevenson, E. C., and Street, J. C., cloud chamber photographs of counter-selected cosmic-ray showers, A., 542. Cosmic-ray showers produced by electrons, A., 1441. See also Street, J. C.

Stevenson, H. B., the Procter and Gamble oil colorimeter, B., 750.

Stevenson, T. M., and Clayton, J. S., breeding of coumarin-free sweet clover, Meliotus, B., 756. Stevenson, W. L., treatment and disposal

of industrial wastes, B., 766.

Steward, C. O. M., testing of yarns and fabrics for "looseness" (or "fastness") of the dye therein, (P.), B.,

and Whitehead (Laisterdyke), Ltd., W. & J., machine for testing fastness to rubbing [of dyed textiles], B., 98.

Steward, F. C., mechanism of salt absorp-

tion by plant cells, A., 256. Berry, W. E., and Broyer, T. C., absorp-

tion and accumulation of solutes by living plant cells. VIII. Effect of oxygen on respiration and salt accumulation, A., 907.

Steward, W. B., and Nielsen, H. H., infrared absorption spectrum of germane, A., 136.

Stewardson, E. A., pressure dependence of unimolecular reactions, A., 431.

Stewart, A., and Nat. Lead Co., storage-battery paste, (P.), B., 1002. See also Imperial Chem. Industries.

Stewart, A. B. See Robertson, I. M. Stewart, A. W., and Tocher, J. F., effect of variations in feeding on dairy cows yielding milk of poor quality, B., 615.

Stewart, C. A., old tuberculin, human tubercle bacillus protein, and trichloroacetic acid precipitate, A., 367.

Stewart, C. P. See Davidson, J. N. Stewart, D. R., and Jacobs, M. H., permeability of the egg of Arbacia punctulata to certain solutes and water, A., 888.

See also Jacobs, M. H.

Stewart, F. C. See Everett, H. A. Stewart, G. W., structure of solutions of strong electrolytes in alcohols and water, A., 27. X-Ray diffraction intensity of the two liquid phases of p-azoxyanisole, A., 670. Study of the nature of liquids by means of X-ray diffraction, A., 1055. See also Letner, H. R.

Stewart, H. L., Cantarow, A., and Morgan, D. R., renal changes in biliary stasis and decompression in cats, A., 1141.

Stewart, I. See Hottel, H. C.

Stewart, (Miss) J. See Morgan, (Sir)

Stewart, J. K., and Bewick, H. L., relation of thinners in overlapping varnish coatings, B., 894.

Stewart, J. R., [ccllulose nitrate] lacquers versus synthetics, B., 510. Petroleum thinners: standard methods of analysis with physical and chemical data on lacquer diluents, V.M. & P. naphthas, and mineral spirits, B., 676. Viscosity [of varnishes] and its relationship to other physical properties, B., 703. Petroleum lacquer diluents, B., 703. Consistency characteristics [of paints], B., 751.

See also Sward, G. G.

Stewart, K. See Emeléus, H. J. Stewart, R. D., surface covering of walls and buildings, (P.), B., 500.

Stewart, R. M., uses of soluble borates in

[citrus] packing houses, B., 392. Stewart, S. D. See Musgrave & Co.

Stewart, T. D., and Weidenbaum, B., reaction between ethylene and chlorine in presence of chlorine acceptors; photo-chlorination of ethylene, A., 37. Induced substitution of pentene by chlorine, A., 310.

Stewart, V. A., and Solomon, L. A., treatment of photographic surfaces [kine-

matograph films], (P.), B., 813.
Stewart, V. E., and Pollard, C. B., derivatives of piperazine. IX. Addition to conjugate systems. I., A., 1522.

Stewart, W. C. See Du Pont de Nemours & Co., E. I.

Stewart, W. D., and Arthur, J. M., ashing of plant material, A., 1436. Steyermark, A. See Hooker, S. C.

Steyn, D. G., toxicology of plants in S. Africa, B., 35.

and Rimington, C., occurrence of cyanogenetic glucosides in S. African species of Acacia. I., A., 768.

Stiasny, E., theory of tanning, B., 290.

Sticha, K., colouring of sheeted asbestoscement composition material, etc., (P.),

Sticking, R. W. E. See May & Baker.

Stief, heating of ovens for degasifying coal, B., 131.

Stiegler, H. W. See Powers, D. H. Stieglitz, C. R. von, direct polarisation of

final molasses, B., 424. and Home, L. C., determination of

reducing sugars, method, B., 1063. using Tryller's Stieglitz, E.J., and Palmer, A. E., pharma-

cology of nitrite effect of bismuth subnitrate, A., 518.

Stieglitz, H., chemistry of sap of winter wheat, B., 563.

Stiehler, R. D., thermoregulator, A., 445. Stieler, C., welding non-ferrous metals, B.,

Stiepin, V. V. See Syrokomsky, W. S. Stier, T. J. B., relation of oxygen tension

and temperature to time of reduction of cytochrome, A., 246.

and Stannard, J. N., kinetic analysis of endogenous metabolism of bakers' yeast, A., 522. Metabolic systems involved in dissimilation of carbohydrate reserves in baker's yeast, A., 522.

Stierstadt, O. See Goetz, A. Stiles, C. F. See Sanborn, C. E. Stiles, H. G. See Standard Oil Co.

Stiles, H. R., and Commercial Solvents Corp., butyl-acetonic fermentation process, (P.), B., 1174.

See also Commercial Solvents Corp. Still, C., intermittent operation of externally-heated coke ovens or retorts, (P.), B., 582. Apparatus for expansion of

hydrocarbons for cracking and distil-lation, (P.), B., 1190.

Still, E. U. See Bowman, H., and Scott, V. B.
Still, E. W., factors affecting the design of

heat-transfer apparatus, B., 1183.

Still, W. G. See Turner & Newall.

Still, W. J., heat-exchange elements for heating or cooling fluids, (P.), B.,

Still Ges.m.b.H., C., carbonising retorts for use in coke and gas-producing chamber ovens, (P.), B., 179. Compound regenerative coking ovens, (P.), B., 179. Charging of horizontal chamber ovens with carbonising retorts, (P.), B., 437. Utilising waste heat in production of benzene from saturated wash oil, (P.), B., 820.

Stille, U. See Cario, G. Stiller, A. See Mystkovski, E. M.

Stiller, M., properties of trass, B., 194. Stillman, R. C. See Spielman, L. A. Stillwell, C. W., crystal chemistry. I.

Graphic classification of binary systems, A., 1464.

Stillwell, F. L., microscopic analysis of opaque minerals, A., 586.

Stimmel, B. A., McBean, K. D., Cruickshank, G., and Consol. Mining & Smelting Co. of Canada, roasting of mineral-

bearing particles, (P.), B., 152.
Stimmel, B. F., McCullagh, D. R., and Picha, V., thyrotropic hormone of the pituitary gland and iodine metabolism, A., 1030.

Stines, D. E. See Standard Oil Develop-

ment Co. Stinson, T. K., and Mepham Corp., G. S., oil-well drilling mud, (P.), B., 533.

Stirikovitsch, M., radiative heat exchange in combustion engines, B., 671.

Stirling, A. M., cream quality, B., 1230. Stirton, A. J. See Groggins, P. H. Stitt, F. B., and Yost, D. M., Raman

spectrum and fundamental vibration frequencies of silanc (SiH4), A., 268.

Stitt, R. R., [vacuum-driven] compressor for gaseous fluids, (P.), B., 82.

Stock, A., Kurzen, F., and Laudenklos, H., boron hydrides. XXI. Potassium compounds of B₄H₁₀ and B₅H₉, A., 172.

and Laudenklos, H., boron hydrides. XXIV. Borane salts, A., 1217.

Stock, A., and Mathing, W., boron hydrides. XXII. Conversion of diborane, B2H6, into other volatile boron hydrides. XXIII. Transformation of diborane, B_2H_6 , into solid boron hydride $(BH)_x$, A., 945.

Sütterlin, W., and Kurzen, F., boron hydrides. XX. Potassium diborane,

 $K_2(B_2H_0)$, A., 172. Stock, E., resins. XX. Black Borneo "fossil" copal II. XXI. Refined New Zealand kauri copal. XXII. "Run" amber. XXIII. A natural resin shellao substitute. XXIV. Mata-Kuching dammar. XXV. "Pilau" copal, B., 160, 336,651. Oiticica oil. I. and II., B., 335, 1165. Chlorinated rubber lacquers, B.,651. Bulk density of pigments, B., 1108. Phthalic acid-resin varnishes. 1166.

Stockbarger, D. C., large single crystals of

lithium fluoride, A., 573.

Stockdale, D., numerical relationships in binary metallic systems, A., 151. numerical relationships Simple binary eutectic mixtures, A., 1204.

Stockdale, P. B., rare stylolites, A.,

Stockdale, T. E. See Standard Oil Co. Stocker, O., assimilation and respiration of tropical trees of West Java, A., 1162.

Stockert, R. See Schwarz, K. Stockham, H. C., and Fantz, F. C., return bend for [oil-]cracking stills, (P.), B., 681.

Stockhausen, F., and Koch, R., determination of the yield of strong and weakly fermenting bottom beer yeasts, B., 1121.

and Silbereisen, K., gum and glycogen of yeast, A., 1558. Yeast gum. III. Yeast gum in beer, B., 118. Permeability of the yeast cell-membrane, B., 1013.

Stockholms Benmjölsfabriks Aktiebolaget, thin, flexible, adhesive foil [for glueing wood], (P.), B., 466.

Stockholms Superfospat Fabriks Aktiebolaget, treatment of chlorates to reduce risk of fire, (P.), B., 1206. Stockmair, W. See Kohlrausch, K. W. F.,

and Reitz, A. W.

Stocks, H. H. Seo Imperial Chem. Industries.

Stocks, J. A. See Yorkshire Tar Distillers. Stockton, M., and Dicalite Co., treatment of diatomaceous earth with chemical agents, (P.), B., 233. Milling of diatomaceous earth, (P.), B., 453. Air separation of diatomaceous earth

milling, (P.), B., 722.

Stockton, R. C., preparation of metal specimens for the microscope, B., 890.

Stoddart, E. M., preparation of oxygen by electrolysis of baryta, A., 299. Oxygen afterglow, A., 397.

Stoddart, L. A., osmotic pressure and water

content of prairie plants, A., 393.

Stodola, F. H., and Anderson, R. J., lipins of tubercle bacilli. XLV1. Phthiocerol, an alcohol from the wax of the human tubercle bacillus, A., 1028.

See also Anderson, R. J., and Crowder, J. A.

Stoecker, J. See Feldmann, W.

Stöhr, J., preparation of alumina poor in silicic acid from alkaline-earth aluminates, (P.), B., 274.

Stöhr, R., glycogen formation from lower fatty acids with an even number of carbon atoms. III. Fate of acetoacctic acid in the animal organism, A., 235. Action of methylglyoxal on acetoacctic acid. VI. Liver- and muscleglycogen after feeding of the ketol and simultaneous injection of insulin, A., 890. Physiological behaviour of trioses and related compounds. VI. Liver- and muscle-glycogen after feeding of methylglyoxal and simultaneous injection of insulin, A., 890.

Størmer, C., orbit of electric particles in field of a magnetic dipole, with application to theory of cosmic radiation, A.,

Stoermer, R., and Cruse, K., unique position of ϵ -truxillie acid; truxilloketones. XIX., A., 71.

and Möller, F., semitruxonic acids of the truxillie acid series and the missing truxone, peri-truxone. XX., A., 71. and Stroh, H., phenylbenzylsuccinic acids, A., 73.

and Stroh, H. [with Albert, H.], degradation of γ -truxillic acid. to a diphenylcyclobutanemonocarboxylic acid. XVIII., A., 71. Stoerr, E. See Bezssonoff, N., and Rohmer, XVIII., A., 71.

Stössel, H., insulating building slabs, (P.), B., 235. Slabs or blocks for sound and heat insulation, (P.), B., 373.

Stoesser, A. V., cholesterol fractions in acute infections of infants with and without eczema, A., 1540. Iodine value of scrum-fatty acids in acute infections of infants with and without cczema, A., 1540.

and McQuarrie, I., influence of acute infection and artificial fever on plasma-

lipins, A., 365.

Stoesser, K. von, use of glass in chemical plants, B., 1093.

Stoesser, S. M. See Dow Chem. Co. Stoesser, W. C. See Dow Chem. Co.

Stofsky, N. See Karshan, M. Stohl, M. See Vogel, H.

Stoicesco, S., and Gingold, N., influence of ascorbic acid on normal human carbohydrate metabolism, A., 529.

Stokes, J. H. See Beerman, H. Stokes, R. O., and Allan, J. C., apparatus for separation of minerals, (P.), B.,

912. Stokes, S. C., rubber in paints, B., 509.

Stokes, S. H., tar-fog removal, B., 355. Stokes, W. E., and Track, L. K., sugar tolerance in the A.A.C.C. basic formula for testing cake flours, B., 1174.

Stokkebye, E. O., rice flakes, (P.), B., 297. Stoklasa, J., radio-physiological importance of potassium in chlorophyll-containing and free cells, A., 1163. Stokstad, E. L. R. See Almquist, H. J.

Stoland, O. O. See Lands, A. M.

Stolfi, E., chemical constitution of exudates and transudates. I. Protein and glucose. II. Calcium, sodium, and chlorine, A., 1287.

and Stolfi, G., composition of lipomas,

A., 752. Stolfi, G., fat metabolism in course of gestation of Trygon violacea, A., 370. Chemical constitution of the fat in human subcutaneous connective tissue. VII. Reichert-Meissl value, A., 1011. Glycæmia following scalding and traumatic shock, A., 1289.

Stolfi, G., cause of hyperglycemia following traumatic shock. I. Blood-glycolysis. II. Liver-glycogen and cellular oxidation, A., 1289. Sec also Stolfl, E.

Stoljarov, A. Sec Rakitin, J. V.

Stoljarov, A. A., spontaneous ignition of litharge and linseed oil, B., 29.

Stoljarski, B. S. See Koshuhkova, M. A. Stolk, D. van, and Pénau, H., bi-sexual hormone (dehydroandrosterone), A., 1302.

Pénau, H., and De Lenchêre, R. L., industrial extraction of crystalline folliculin; physical and biological determination, A., 1428.

Stoll, A., relationships between chemistry of chlorophyll and its function in photosynthesis, A., 392.

See also Kharasch, M. S.

Stoll, H., paper as electrical insulating material, B., 449.

Stoll, M., kinetics of simultaneous polymerisation and ring formation, A., 1073.

and Rouvé, A., polymembered heterocyclic compounds. IX. Polymembered cyclic esters from dihydric alcohols and dicarboxylic acids. X. Determination of the rate of ring closure, A., 590, 1361.

and Scherrer, W., polymembered heterocyclic compounds. IX. Polymembered cyclic ethers and keto-ethers, A.,

964.

Stoll, R., determination of the ozone content of the air layer near the ground by a photo-electric counter, A., 583.

Stoll, R. E. See Newhouse, R. C.

Stoltz, R. B., what is bottled concentrated milk? B., 249.

Stolze, E., determination of small amounts of copper, especially in plants, A., 1434.

Stone, F. L. See Gen. Electric Co. Stone, F. M. See Coulter, C. B.

Stone, F. W., and Garrison, J. N., apparatus for mixing fluids, (P.), B., 963. Regeneration of sodium plumbite solution [from oil refining], (P.), B., 969.

Stone, G. C. H., alkane-αω-disulphonates, A., 589.

Stone, H. E., pigment dispersion, (P.), B., 1166.

Stone, H. G. See Eastman Kodak Co.

Stone, H. W., and Beeson, C., preparation and storage of standard chromous sulphate solutions, A., 953.

Stone, I., inhibiting corrosive action of alkaline aqueous solutions, etc., (P.), B., 26. Water-repellent coatings and [fibrous] materials coated with same,

(P.), B., 1167. Stone, J. M. See Gray, P. P. Stone, L. F. See Hunter, W. H.

Stone, Leslie F. See Du Pont de Nemours

& Co., E. I. Stone, R. W., Wood, H. G., and Werkman, C. H., activation of lower fatty acids by

propionic acid bacteria, A., 640. Stone, S. C. E., and Stone, S. V., [encased-asbestos] heat insulation, (P.), B., 4.

Stone, S. V. See Stone, S. C. E.
Stone, W. E., growth, chemical composition,
and efficiency of normal and mosaic

potato plants in the field, A., 909.

Stone, W. J., and Burke, G. T., test for occult blood, especially in urine, A., 95.

Stone & Co., Ltd., J., Chilton, A. H., and Schofield, W., plates for secondary batteries, (P.), B., 605.

and Corson, M. G., copper-tin alloys, (P.), B., 1101.

and Cotter, E. W., plate heat-exchange apparatus for fluids, (P.), B., 479.

and Empson, A. W., spanner devices, particularly for centrifugal machines, (P.), B., 49.

and Murphy, A. J., magnesium-base alloys, (P.), B., 1213. and Watkins, W. P., [ejector device for]

disposal of sewage and similar refuse

from ships, (P.), B., 526. Stonehill, H. J. See Partington, J. R. Stoner, E. C., temperature dependence of free electron susceptibility, A., 266. Temperature dependence of free electron specific heat, A., 278. Curie point of nickel, A., 415. Internal energy of ferromagnetics, A., 554. Temperature variation of electron spin paramagnetism, A., 785. Collective electron specific heat and spin paramagnetism in metals, A., 1057. Specific heat of nickel, A.,

Stoodley, L. G. See Campbell, N. R. Stoody Co. See Strobel, K. Stora, (Mllc.) C., Becquerel effect and photochemical sensitivity of some fluorescent dyes, A., 408, 665. Influence of $p_{\rm H}$ on Becquerel effect of coloured electrodes, A., 800. Mechanism of the Becquerel effect of organic molecules, A., 938.

Storch, H. H., kinetics of ethylene polymerisation. II., A., 164.

See also Yant, W. P.

Storch, K., hydrolysis of pine and beech wood, A., 207. Characteristics of the lignin of red beech. I. and II., B., 783, 979. Effectiveness of various chemical agents against Hylecoltus dermestoides and Anobium pertinax, B., 837.

Storck, G. See Wimmer, G. Storfer, E., heterogeneous catalysis. II. Adsorption on graphite and diamond, A., 153. Storgards, T., influence of nutrition on

quality of butter, B., 217.

Storks, K. H., and Germer, L. H., electron diffraction by films built from many unimolecular layers, A., 1451.

Storm, C. J., use of adrenaline in intravenous injections of atebrin, A., 642. Action of adrenaline in the monkey, A., 642.

Stormer, I., follicular hormone and tho time of blooming of chrysanthemums, A., 1034.

Stormont, R. T. See Cox, R. F. B. Storvick, C. A. See Swanson, P. P.

Story, B. W., Fuller, E. W., and Socony-Vacuum Oil Co., Inc., mineral oil com-

position, (P.), B., 534.

Story, E. B. See Aston, J.

Story, Le R. G. See Texas Co.

Stothert & Pitt, Ltd., and Beckerleg, C. R., apparatus for separating liquids from

solids, (P.), B., 722. Stott, (Miss) E. See Speakman, J. B. Stott, O., removal of sludge from oil

accumulating in sumps of apparatus such as viscous-type air filters, (P.), B., 917.

Stott, P. H., preparation and dyeing of rayon piece goods for printing, B., 16. Stott, V. H., shrinkage during the solidification of aluminium alloys, B., 996.

Stotz, H. See Schwarz, G.

Stotz, R., influence of usual alloying elements on malleable cast iron, B.,

Stoughton, R. W., determination of phenols, A., 1281.

and Lamson, P. D., anæsthetic activity of butanes and pentanes, A., 1552. See also Lamson, P. D.

Stout, G. J. See Mack, W. B. Stout, J. W. See Giauque, W. F.

Stout, L. E., and Tillman, A. B., reclaiming chlorinated dry-cleaning solvents by

adsorption, B., 315.

Stoutemyer, V. T., and Smith, F. B., effects of sodium chloride on some turf plants and soils, B., 659.

Stovall, W. D., Pessin, S. B., and Almon, L., effect of thymol on rabbit moniliasis, A., 112.

Stover, N. M., and Constantinescu, C., aluminium oxide-carbonreaction chlorine, A., 1475.

Stoves, J. L. See Clark, C. H. D. Stowell, E. R., and Hoyt, W., refractory composition, (P.), B., 545.

Stoyle, J. A. R., polarisation of raw sugars, clarifying with basic lead acetate solution, but with and without alumina cream, B., 1120.

Strachan, J., preservation of books and papers. I. Paper, B., 981. Calculation yield on sulphite papers, B.,

Strachan, J. C. See Satterly, J. Strachova, E. N. See Klevke, V. A. Strachova, G. See Lepin, L.

Strack, E., Wördehoff, P., and Schwane-

berg, H., significance of carnitine in muscle, A., 499.

Strähuber, F., scaling losses in rolling-mill furnaces, B., 410.

Strafford, N., colorimetric analysis by the photo-electric cell, A., 581.

and Wyatt, P. F., colorimetric determination of minute amounts of mercury in organic matter, A., 1221.

Strain, H. H., leaf xanthophylls, A., 739. Petroleum-soluble fluorescent

stituents of leaves, A., 1037. Strain, W. H., and Allen, W. M., molecular still, A., 46.

and Marsh, M. E., effect of bile salts on the oxygen consumption of dog tissues, A., 1409.

Strait, L. A., and Jenkins, F. A., nuclear spin of iodine from the spectrum of I2, A., 654.

Strajesko, D. N. See Fomin, S. V.

Straley, J. M. See Gilman, H., and Yeager, J. F.

Straller, H. See Fischer, Ph.

Stranathan, J. D., elimination of peculiarities in dielectric behaviour of water vapour, A., 12. Peculiarities of dielectric constant versus pressure curves for vapours, A., 1321.

Stranathan, R. K. See Granath, L. P., and Rose, J. L.

Strandell, B. See Laland, P.

Strang, E. S. See Western Electric Co. Strang, L. C., factors affecting design of bubble-cap columns, B., 720.

and Nash, A. W., graphical computations for separation of ternary mixtures by distillation, B., 720. Strashesko, D. See Volkov, K.

Strasser, E., [casting of] magnesium alloys, (P.), B., 603. Magnesium alloys, (P.), B., 938.

Strasser, F., aluminium solder, (P.), B.,

Strasser, J., new applications and developments in the use of starch in paper [-making], B., 587.

Strassmann, F. See Hahn, O. Stratford, C. W., purification of hydrocarbon oils, (P.), B., 180.

Stratford, R. K., recent developments which have increased the flexibility of the phenol process for treatment of lubricating oils, B., 775.

See also Standard Oil Development Co.

Stratford, W. M. See Texas Co.

Strating, J., and Backer, H. J. [with Benninga, N., and Lolkema, J.], preparation of pure crystalline aliphatic hydrocarbons, A., 1485. See also Backer, H. J.

Stratta, R., diastatic activity of flour in relation to bread-making, B., 425.

Stratton, K. See Partington, J. R. Straub, F. See Soc. Chem. Ind. in Basle. Straub, F. G., continuous production of distilled water free from carbon dioxide and ammonia, A., 47. Removal of silica from solution at boiler temperatures, B., 317. Analcite; preparation and solubility between 182° and 282°, B., 317.

Straub, F. J., crusher, (P.), B., 960.

Straub, J. See Nagy, M.

Straub, O. See Ruggli, P.

Straub, W., and Gebhardt, H., active principles of senna leaves, A., 1021.

and Scholz, J., vagus[-stimulating] substances, A., 1294.

Straumanis, M., growth of metal crystals in metal vapour. IV., A., 15. Possibility of protecting metals from corrosion, B., 374.

and Brakšs, N., structure of zinc-

cadmium eutoctic, A., 23. and Ence, E., system Zn[Hg(CNS)₄]-Cu[Hg(CNS)₄], A., 1340.

and Ievinš, A., accurate determination of glancing angles and lattice constants by the method of Debye and Scherrer, A., 181. Precision measurements with the Debye-Scherrer method. II., A., 273. Lattice constant of sodium chloride and rock-salt, A., 1326. Seo also Ievinš, A.

Straus, F., and Thiel, W. [with Szyszka, G.], addition of alkyl halides to the ethylenic linking, A., 1375.

Straus, J., oil-soluble dyes, (P.), B., 445.

Strauss, E. See Bauer, Hugo. Strauss, J. See U.S. Rustless Steel & Iron Corp.

Strauss, K. H., exact measurement of cosmic rays by the uranium compensation method, A., 919.

Strauss, M. Sec Harrop, G. A.

Strauss, R., decomposition of beryl and preparation of beryllium, B., 18. Application of chloroparaffins to the preparation of soaps and cosmetic preparations, B., 557. Electro-graphite; preparation, properties, and applications, B., 865.

Strausser, P. W. C. See Blum, W., and Hull, \hat{R} . O.

Straw, H. T., and Cranfield, H. T., effect of heat on betaine, A., 595.

Strayer, J. W. See Grimm, P. D.
Strázewicz, W. J., essential oil content of drugs, B., 298.

Stream-Line Filter Co., Ltd., and Beacham, T. E., separation of contamination from [used] lubricating oil, (P.), B., 309.

Strebeyko, P., effect of soil reaction on availability of different forms of phosphoric acid, B., 658.

Strebinger, R., and Zombory, L. von [with Pollak, L.], volumetric determination of sulphate using sodium rhodizonate, A.,

Strecker, G. See under Strecker, O. C. Streeker, O. C., etching compositions [for zinc lithographic plates], (P.), B., 396. Strecker, O. H. See under Strecker, O. C.

Streeck, R. See Helferich, B.

Streef, G. M., exchange of sodium, potassium, and calcium between erythrocytes and plasma and content of these elements in plasma and serum, A., 1284.

Street, H. R., and Palmer, L. S., requirements of the flour-beetle (Tribolium confusum, Duval) for vitamins in the B group, A., 904.

Seo also Stenström, W.

Street, J. C., Schneider, E. G., and Stevenson, E. C., heavy particles from lead, A., 1441.

and Stevenson, E. C., counter-controlled cloud chambers, A., 1355.

and Young, R. T., shower groups in the cosmic radiation, A., 1174.

See also Stevenson, E. C., and Woodward, R. H.

Streeter, E. H., and Masonite Corp., [fibre] boards, (P.), B., 1097.Streeter, H. W., Wright, C. T., and Kehr,

R. W., measures of natural oxidation in polluted streams. III. Experimental study of atmospheric re-aëration under stream-flow conditions, B., 670.

Streight, H. R. L. See Imperial Chem. Industries.

Streletz, V., avoidance of cracks and bad structure in blast-furnace refractory production, B., 409.

Strelkov, I. I., simplified method of calculating entropy of organic compounds, A., 787.

Strell, M., properties, purification, and utilisation of waste liquors from the fermentation industries, B., 1014.

Streng, F., printing with naphthol AS and rapidogen dyes, B., 367.

Strepkov, S. M., iodometric determination of fructose, A., 1365. Micro-determination of fructoso in presence of glucose, A., 1397.

Stresino, C., and Smith Corp., A. O., moulding compositions, (P.), B., 1219.

Strevens, J. L., coal-oil trials in a Diesel bus, B., 401. Colloidal fuel, B., 1026.

Brocklebank, E. W., and Mitford, W. B., coherent coke from non-caking carbonaceous materials, (P.), B., 135.

and Mitford, W. B., cracking of distillates from coal/oil mixtures, (P.), B., 678.

Strezynski, G. J., and De Laval Separator Co., centrifuge, (P.), B., 81. Selfdraining centrifugal bowl, (P.), B., 224. Centrifugal bowl for separating heavy sludge and solids from lighter liquids, (P.), B., 1023.

Kronasser, W., and De Laval Separator Co., purifying and dewaxing of mineral oil, (P.), B., 583.

See also Aktieb. Separator-Nobel. Stricker, F. See Schild, E.

Strickhouser, S. I., and U.S. Rubber Co., rubber articles, (P.), B., 465.

Stricks, W. See Redlich, O. Strick, E. See Skraup, S.

Striegan, G., technique of charging the open-hearth furnace, B., 792.

Strieter, O. G., weathering quality of roofing felts made from various fibres, B., 783. and Snoke, II. R., modified accelerated weathering test for asphalts and other materials, B., 774. Strigaleva, N. V. Sec Moor, V. G.

Striganova, A. R., influence of soya beans on gastric secretion, A., 1139.

Strindberg, R. See Development Associates, Inc.

Stringfellow, W.A. See Hanson, J.

Stritar, J., Daek, G. M., and Jungewaelter, F. G., control of staphylococci in custard-filled puffs and éclairs, B., 856.

Strobel, K., and Stoody Co., protectively facing [metal] surfaces with abrasion-resisting material, (P.), B., 281. Welding rod for applying protective abrasion-resisting facings, (P.), B., 281.

Strobl, F. See Karady, I.

Strochlke, J. T., removal of waste materials from mica and vermiculite, (P.), B., 495. Strock, L. W., crystal structure of the high-

temperature form of silver iodide a-AgI, A., 413. Classification of crystal structures with defect lattices, A., 1325.

See also Goldschmidt, V. M.

Stroehlke, J. T., treatment of micaceous ores, (P.), B., 407. Strömer, E. See Lasch, A.

Stroganov, M. M. See Joffe, V. S.

Stroh, H. See Stoermer, R.

Strohal, D., conversion of fermented molasses residue into a powdered fertiliser, B., 71.

Strohecker, R., and Vaubel, R., determination of ascorbic acid by titration with 2:6-dichlorophenol-indophenol mans' method), A., 1430.

Vaubel, R., and Breitwieser, K., occurrence and detection of silicic acid in various food-stuffs [milk, meat, cacao, and eggs], B., 169.

Strohmenger, A. P. See Quasi-Arc Co. Stromberg, A. G. See Karpatschev, S.

Stromberg, H. See Short, W. F.

Strong, F. M. See Karrer, P., and Woolley, D. W.

Strong, H. M., and Knauss, II. P., band spectrum of boron fluoride, A., 775.

Strong, J., effect of evaporated films on energy distribution in grating spectra, A., 399.

See also Brice, R. T., and Gaviola, E. Strong, J. R. See Wirth, C. Strong, T. H., lucerne seed inoculation in Queensland, B., 38.

Strother, C. O., and Richards, W. T. acoustical studies. VI. Behaviour of formic and acetic acid vapours, A., 1329.

See also Fromherz, H.

Strotzer, E. See Hüttig, G. F. Stroup, P. T. See Aluminium, Ltd., and Aluminum Co. of America.

Strouse, G. C. See Du Pont de Nemours & Co., E. I.

Strout, A. L. See Standard Oil Co. of California.

Strubig, H., potential of an insulated screening grid in an electron stream,

Struble, E. B. See Sharp, P. F.

Struck, M., excretion of ovarian hormone by sows during pregnancy, A., 902.

Strübin, F., operation of furnace installations, (P.), B., 128.

Strugatski, M. K. See Nametkin, S. S. Strukov, I. T. See Magidson, O. J.Strum, E. See Wülfing, J. A.

Strunz, II., structural and morphological relations between epidote and zoisite, and between epidote and ardennite, A., 959. Datolite and herderite, A., 1358. Comparative X-ray and morphological investigation of andalusite, (AlO)AlSiO₄, libethenite, (CuOH)CuPO4, and adamine (ZuOH)ZnAsO₁, A., 1483.

Struthers, J. P. See M'Candlish, A. C. Struve, W. S. See Bachmann, W. E.

Struyk, A. P., apparatus for determining fermentative properties of aërobic and anaërobic micro-organisms, A., 385.

Stryker, H. I. See Du Pont de Nemours

& Co., E. I. Stuart, A. H. See Lutz, R. E.

Stuart, A. T., fuel gas, (P.), B., 135.

Stuart, C. A. See Carpenter, P. L. Stuart, E. H., and Lilly & Co., E., vitamin-B, (P.), B., 44. See also Sure, B.

Stuart, F. E., how activated charcoal is working out in practice in the water-works field, B., 526.

Stuart, K. E., and Hooker Electrochem. Co., absorption process for gases [ethylation of sulphuric acid], (P.), B., 53. Introducing reagents [chlorine] into liquid suspensions, (P.), B., 817. Continuous hydrolysing process, (P.), B., 919. Controlling the flow of volatile liquids, (P.), B., 962.

Stuart, L. S., halophilic chitinovorous bacteria, B., 561.

See also Frey, R. W.

Stuart, N. W., adaptation of the micro-Kjeldahl method for determining nitrogen in plant tissues, A., 1434.

Stubbs, J. J., and Senseman, C. E., 4ehloroacetophenone; catalytic oxidation in the liquid phase, A., 851.

Stubbs, J. R., and Elsdon, G. D., standardisation of Hortvet thermometers, B., 904. See also Elsdon, G. D.

Stuber, B. See Lang, Konrad.

Stuchlik, V., ropiness of white bread and its prevention, B., 40.

Stuchtey, R., [relation between] bulk density, moisture content, and fineness of fine coal, B., 723.

Stuckert, L., opacifiers in wet and dry

enamels, B., 884.
and Meier, F. W., 8-hydroxyquinoline
method for determination of aluminium, iron, and titanium, A., 1479.

Studien- & Verwertungs-Ges.m.b.H., apparatus for carrying out catalytic gas reactions, (P.), B., 964. Desulphurisation of gases, (P.), B., 1031. Treatment of products of the synthesis of benzine from hydrogen and the oxides of carbon, (P.), B., 1139. Increasing yield in the catalytic synthesis of aliphatic hydrocarbons, (P.), B., 1191. Studiengesellschaft der Deutscher Leder-

industrie G.m.b.H. See Bergmann, M. Stübing, O., helium-tungsten arc, A., 655. Stueck, G. See Shore, A.

Stueckelberg, E. C. G., intensity of scattered radiation from moving free electrons, A., 659. Artificial radioactivity giving continuous y-radiation, A., 918. Radioactive B-decay and nuclear exchange force as a consequence of a unitary field theory, A., 920. y-Radioactivity with continuous spectrum; new unitary field theory, A., 1313.

Stürmer, C., vapours from glazes in the tunnel furnace, B., 835.

Stützel, H., sun-burning [of basaltic rocks], A., 1087.

Stuewer, R. F. See McBain, J. W.

Stuhlman, O., jun., near ultra-violet band spectra of iodine, A., 1437.

and McCay, M. S., intensity of hydrogen α - and β -lines as determined frequency of the electrical field in electrodeless discharge, A., 1.

Stumm, O. See Hein, F. Stumpf, K. E., and Jander, G., properties of aërocolloid systems, with regard to their dependence on methods of form-

ation, A., 1198. Sturges, T. E., and Southwell & Co., packing of edible or other substances or preparations liable to deterioration or injury from damp, heat, or climatic conditions, (P.), B., 811.

Sturgis, C. C. See Isaacs, R.

Sturm, A., and Eitner, H., relationship

of tissue iodine to glycogen, A., 1292. and Rockmann, L., fractional iodine determinations in human organs; biological function of tissue-iodine, A., 1532.

and Schöning, W., detection of thyrotropic hormone in tissues other than of the pituitary, A., 1426.

Sturm, E. See MacFadyen, D. A. Sturm, W. A. See Smith, S. B.

Sturrock, A., furnace construction. (P.). B., 255.

Sturtevant, J. M., spindle for insulating wires, A., 1355.

Sturtevant, T. J., and Sturtevant Mill Co. air separator, (P.), B., 130. Sturtevant Co., Inc. See Ferre, A. W.

Sturtevant Engineering Co., Ltd., and Wagner, H. \overline{W} ., electrostatic precipitation of suspended matter from gas, (P.), B., 507.

Sturtevant Mill Co. See Sturtevant, T. J. Stuteville, O. H., vitamin-C in saliva, A., 906. Stutz, G. F. A., Depew, H. A., and New Jersey Zinc Co., treatment of pigments, (P.), B., 1218.

and New Jersey Zinc Co., pigments, (P.), B., 652.

See also Bunce, E. H., Flynn, E. J., and Holstein, L. S.

Stutzer, O., carbon dioxide eruptions from coal seams in Lower Silesia, A., 1484.

Stuurman, J., elaidinisation of oleic acid and cis-trans isomerism, A., 590. Maximum yield of the intermediate product C in two successive bimolecular reactions, (I) $A + B \rightarrow C$ and (II) $A + C \rightarrow D$ when the constants k_1 and k_2 are known, A., 1468.

See also Böeseken, J., and Zuydewijn, E. de R. van.

Style, D. W. G. See Fergusson, W. C., and

Gregory, R. A. Styri, H. See Larsson, J.

Suarez, B. See Echenique, L.

Suba, T. See Kita, G.

Subarrow, Y., Jacobson, B. M., and Fiske, C. H., separation of liver substances which are reticulocytogenic in the guinea-pig and therapeutically active in experimental canine black tongue.

Subbaramaiya, D. S., light scattering in gold sols in relation to particle size and shape, A., 156.

Subbaraya, T. S., spark spectrum of mercury, Hg II and Hg III, A., 398.

Subbotin, S. A., and Lukiantschikov, A. N., preparation of colloidal silicic acid as active filler for rubber, B., 31.

See also Lebedev, S. V. Subkow, P. See Merrill, D. R.

Subrahmanian, T. S. See Varma, P. S. Subrahmanian, V., determination of nitrogen in soils, B., 897.

See also Bhaskaran, T. R., Iyengar, B. A. S., Iyer, C. R. H., Narasimhamurthy, G., and Sidappa, G. S.
Subramaniam, K. C., magnetic susceptibilities of

ibilities of some organic compounds in different physical states, A., 928. See also Varadachari, P. S.

Subramaniam, K. R. See Rao, S. R. Subramaniam, K. S. See Rao, B. S. Subramaniam, T. S. See Bell, (Miss) J. C.

Sucharda, E. See Mazoński, T., and Skrowaczewska, Z.

Suchodski, V. A., Kheifetz, V. L., and Tschapurski, I. N., electrodeposition of binary alloys (brass), B., 415.

Suchov, K. S., physicochemical characterisation of filterable viruses of mosaic, A., 642.

and Lanshina, M. N., pathological changes in plant cells caused by action of potassium iodide: nature of the X-bodies, A., 648.

Suchovolskaja, S., dielectric losses in paper,

B., 926.

Suciu, (Mllc.) M. Sce Tanasescu, I. Sudakov, S. D. See Joffe, J. S. Suden, C. tum. See Wyman, L. C. Sudlow, E. W. See Fuller, L.

Sudzilovskaia, M. See Rapoport, I. Süddeutsche Apparate-Fabrik Ges.m.b.H., photo-cells, (P.), B., 203.

Sue, P., dehydration of sodium niobates, A., 575. Double decomposition in solution of sodium niobates with metal salts, A., Equilibrium between niobium pentoxide, sodium carbonate, and carbon

dioxide, A., 1070.

Suehiro, S. Sco Kita, G.

Süllmann, H., Szécsényi-Nagy, E., and
Verzár, F., differentiation of pigments of human serum, A., 355.

Suematu, K. See Nakazawa, R.

Sümegi, S., copper metabolism and experimental rat cancer, A., 230. Chlorine and cholesterol metabolism of animals suffering from cancer, A., 882.

Sürü, Y., progress in metallurgical chem-

istry, B., 886. Suess, H. See Gross, P.

Süssenguth, O., and Bakelite Ges.m.b.H., [phenol-aldehyde] synthetic resin, (P.), B., 30.

Süssmuth, K. W., [hollow] moulded sugar bodies, (P.), B., 166.

Sütterlin, W. See Stock, A.

Suffel, G. G., relations of later gabbro to sulphides at the Horne Mine, Noranda,

Quebec, A., 448. Suffolk, S. F. See Huggett, A. St. G. Suga, T. See Takamine, T.

Suganuma, Y., influence of rapidity of intravenous injection of adrenaline on hyperglycemic action, A., 386.

Sugasawa, S., synthesis of papaverine derivatives. II. Synthesis of 1 - (3':4':5' - trimethylphenyl) - 6:7 - diethoxyisoquinoline, A., 489. and Kuriyagawa, M., synthesis of

pyridylisoquinolino derivatives, A., **1392.**

Sugden, S. See Allen, F. L.

Sugii, Y., and Sengoku, T., di-p-tolylene oxide of Sabatier. I., A., 611.

Sugimoto, T. See Iwasaki, Y. Suginome, H., and Umezawa, S., synthesis of selenophen derivatives. I. Action of chlorine and bromine on selenophen, A., 871.

See also Itough, T., and Saito, Kojiro.

Sugiura, K., and Benedict, S. R., influence of magnesium on growth of carcinoma, sarcoma, and melanoma in animals, A., 100. Effect of various goitreproducing diets on growth of carcinoma, sarcoma, and melanoma in animals, A., 751.

Sugiura, M., cow's milk in Manchuria and Mongolia. IV. Non-protein nitrogenous

substance, A., 97. Sugiyama, N. See Kawai, S. Suhner, F. See De Mallemann, R.

Suhrmann, R., and Barth, G., variation of electrical resistance and reflecting power of metallic mirrors condensed

at low temperatures, A., 144. and Berndt, W., electrical and optical investigations of the conversion of non-metallic into metallic antimony, A., 555.

Suida, H., bituminous materials for road

construction, B., 532. and Franchetti, P., action of ageing inhibitors on mineral lubricating oils, B., 134.

Suits, C.G. See Poritsky, H.

Suknarowski, S. Sec Holzman, E.

Suknevitsch, J., and Chomutin, M. S., production of tetrachloroethane from

acetylene, B., 1032.
Schagalov, A. J., and Dobromilskaja,
I. M., production of chloroacetic acid from trichloroethylene, B., 1032.

and Tschilingarjan, A., action of calcium hypochlorite on organic compounds with hydroxyl and carbonyl groups. II. Calcium hypochlorite and secondary alcohols and ketones, A., 963.

Tschilingarjan, A., and Sergeënko, M. D., production of chloroform from alcohol,

B., 1032.

Sula, J., effect of an alkaline reaction and of the physicochemical environment on oxidation of uric acid, A., 233. Sulfio Corporation of America. See Abrams,

Sulima, L., application of the Bunte burette to the determination of acetalde-

hyde in gas mixtures, B., 732.
Sullivan, B., and Bailey, C. H., lipins of wheat embryo. I. Fatty acids. II. Unsaponifiable fraction, A., 912.

Near, C., and Foley, G. H., rôle of lipins in relation to flour quality, B., 663. Harmful action of wheat germ on baking quality of flour, and constituents responsible for this effect, B., 952.

See also Howe, M. A.

Sullivan, F. W., jun. See Standard Oil Co. Sullivan, H. M., determination of cadmium and lead in zinc, using a grating spectrograph with a sector disc, B., 1099.

Sullivan, J. D., progress in furnace re-fractories, B., 643. Refractories in metallurgical industries, B., 1041. Foundry refractories, B., 1094. See also Williams, C. E.

Sullivan, J. T., determination of starch in plants with special reference to woody plants, A., 124. See also Kraybill, H. R.

Sullivan, M. X., and Hess, W. C., coloured compound formed in Sullivan reaction

for guanidine, A., 321. Hess, W. C., and Irreverre, F., muscular dystrophies; presence of simple guanidine derivatives in the urine, A., 1141. See also **Hess**, W. C.

Sullivan, N. P. See Burke, V.

Sullivan, P. H., and Gasoline Products Co., Inc., treatment of hydrocarbons, (P.), B., 535.

Sullivan, R. J., armour plate [steel], (P.), B., 602.

Sullivan, R. R., first spark spectrum of cæsium as excited by electron impact, A., 1040.

Sullivan, R. W. See Booze, J. E.

Sulser, J., manufacture of ethyl alcohol from acetaldehyde, B., 1080.

Sultzer, N. W., and Beaver, C. E., alkali

recovery [from waste gases in alkaline pulp manufacture] by electrical precipitation, B., 282.

Sulzer Frères Société Anonyme, apparatus for separation of dust from gases, (P.), B., 49, 176. Air-conditioning apparatus, (P.), B., 480.

Sumi, M., derivative of vitamin-D and several sterols, A., 1105.

Sumida, S., biochemistry of the vermiform

appendix, A., 748.

Suminokura, K., laccase of Japaneso lac.

II. Reactivity of laccase towards polyhydric phenols and diamines, A., 1023.

Summerbell, R. K., and Bauer, L. N., dioxan series. II. Aryl-substituted dioxans; synthesis of p-dioxen. III. Use of zinc and cadmium chlorides in Grignard synthesis of alkyl-substituted dioxans, A., 341, 820.

Summerfield, P. See Ross, J. R. Summerfield, W. L., and Gunn, C., liquor cresolis saponatus, B.P. 1932, B., 762, Summers, A. P. See Bostrum, E. J.

Summerson, R., partial dehydration of gas by the "glycerin" gas-drying process, B., 1137.

Sumner, F. B., and Fox, D. L., carotenoid pigments in fishes. II. Effects of coloured backgrounds and of ingested carotenoids on xanthophyll content of Girella nigricans, A., 499.

Sumner, J. B., and Howell, S. F., isolation of a fourth crystallisable jack-bean globulin by digestion of canavalin with trypsin, A., 768. Rôle of bivalent metals in the reversible inactivation of jackbean hæmagglutinin, A., 1402. Hæmatin and peroxidase of fig sap, A., 1296.

Sumoto, I. See Nishikawa, S.
Sumwalt, M., Erb, W. H., and Bazett,
H. C., water and chloride excretion of

decerebrate cats, A., 229. Sun, C. E., activation energies of some

reactions involving free radicals, A., 164. [Addition of bromine to] unsaturated acids, A., 454.

and Liu, C., activation energies of addition of hydrogen halides to ethyl-

enc, A., 799. and Wu, T. Y., form of [the] nitrous oxide molecule, A., 1185.

See also Eyring, H.

Sun, C. H. See Finch, G. I. Sun-A-Sured, Inc. See Knudson, A.

Sun-Maid Raisin Growers of California. See Forrest, T. W. W.

Sun Oil Co. See Angstadt, H. F., Pack, R. W., Pew, A. E., jun., and Thayer, $C.\ H.$

Sunawala, S. D., and Katti, M. C. T., determination of acetone in methyl and ethyl alcohol, B., 137.

and Kothavala, Z. R., standards adopted for examination of Indian butter and ghee, B., 41.

Sundararajan, K. S., optical studies on organic crystals. I., A., 1328.

Sunder, C., ageing of castor oil and [its use as a] fatty mordant, B., 1003.

and Frossarelli, C., printing [textiles] with algol blue, B., 590.

Sunder, H., and Lantz, L. A., [aminoazobenzene as catalyst in] dyeing Prnd'homme [prussiate] aniline-black, B.,

Sunderman, F. W., serum electrolytes. X. Water of serum and factors for calculation of molality of a solute in serum from measurement of sp. gr., A., 495.

Sundius, N., Bygden, A., and Bruce, T., mineral content of the silicotic lungs of an earthenware worker, A., 753.

Sung, P. N. See Tang, P. S.Sungalovskaja, L. R. See Chlsin, J. I.

Suntzeff, V. See Moore, C.

Superheater Co., manufacture of tubular heat-exchange elements, (P.), B., 623.

See also Birmingham, T. F., Gates, R. M., and Henkol, E.

Superior Cement Corporation. See Loghry, L. I.

Superior Trademark Manufacturing Co., Inc. See Lohmann, O. F.

Supplee, G. C., Ansbacher, S., Bender, R. C., and Flanigan, G. E., influence of milk constituents on effectiveness of vitamin-D, A., 906.

Bender, R. C., Flanigan, G. E., Dorcas, M. J., and Greider, C. E., irradiated evaporated milk: transmission and antirachitic activation of evaporated milk films by ultra-violet radiations, B., 664.

Flanigan, G. E., Bender, R. C., and Borden Co., vitamin-free casein, (P.), B., 666.

Flanigan, G. E., and Borden Co., manufacture of vitamin-containing material, (P.), B., 666.

Flanigan, G. E., Hanford, Z. M., and Ansbacher, S., lactoflavin, a possible contaminant of vitamin-free diets, A., 765.

See also Ansbacher, S., and Flanigan, G. E.

Sur, M. M., [leadless] vitreous enamel compositions or frits for production of signs, decorations, etc., by stencilling, (P.), B., 643.

Suranyi, Gyula. See under Suranyi, Julius.

Suranyi, Julius, metabolism of organic sulphur in infants, A., 631. Metabolism of organic salts, A., 1144.

and Veghelyi, P., determination of fat in 0.1 o.e. of blood or serum, A., 496, 1530.

Sure, B., and Stuart, E. H., extraction and concentration of vitamins, (P.), B., 1126.

Sureau, M., and Grandadam, P., spectrophotometric determination of a-estrone and its derivatives, A., 1427.

Surface Combustion Corporation. See De Coriolis, E. G.

Surikov, I. V. See Garber, M. I. Surkov, E. I. See Kuzminich, I. N.

Surmin, P. P., conditions of condensation of acetone molecules with each other. A., 708. Condensation of acetone and mesityl oxide with furfuraldehyde, A.,

Surugue, J., radiation from the active deposit of actinium, A., 658.

Susanna, V., reversion of action of adrenaline and other active substances, A., 249.

Susano, C. D., and Barnett, J. H., jun., rapid determination of phosphorus in stainless steels; use of perchloric acid, B., 793.

Suschyzki, B., testing structure of magnetisablo structural materials, (P.), B., 333.

Sushko, S., and Ibragimov-Karnovitsch, R., adsorptive capacity and dispersion of sandy soils by elutriation, B., 163.
Susliakov, A. V. See Farberov, M. I.
Sussman, S. See Milas, N. A.
Susz, B., Raman effect and molecular

structure, A., 136. and Fried, S., Raman spectra of gallic

acid, of its derivatives, and of tannin, A., 1319.

and Perrottet, E., Raman spectra in the eugenol and estragol group, A., 407. Raman spectra of isoeugenol and the safrole series, A., 923. Raman spectra of cis- and trans-isoeugenol, A., 1445.

Perrottet, E., and Briner, E., Raman spectra of compounds belonging to the anethole, safrole, and eugenol groups, A., 777.

See also Briner, E., Fried, S., and Perrottet, E.

Suszko, J. See Becker, Jakob, Domański,

T., Gajowczyk, F., Ludwiczak, R., Podlewski, J. K., and Reyman, J. Sutcliffe, E. R., properties of activated carbon, B., 5. Adsorption apparatus, (P.), B., 912.

Suter, C. M., McKenzie, J. P., and Maxwell, C. E., phenoxthionine. I. Comparison of directive influences of oxygen and sulphur, A., 861.

and Scrutchfield, P. H., phenyl ether series. IV. 4:4'-Dithioldiphenyl ether and related compounds, A., 330. Hydrolysis of halogenobenzenesulphonic acids with alkali, A., 1370. See also Porter, H. D.

Sutermeister, E., bleaching soda pulp, B., 1200.

Sutherland, D. M., jun., fibre refining and refiners, (P.), B., 785.

Sutherland, G., and Harris, J. C., electric kettle for varnish makers, B., 651.

Sutherland, G. B. B. M., and Conn, G. K. T., infra-red absorption spectrum of heavy phosphine (PD₃), A., 1444.

Sutherland, H., and Shriner, R. L., anomalous mutarotation of salts of Reychler's acid. IV. Comparison of 2-anilo-dcamphane-10-sulphonic acid with d-camphor-10-sulphonanilide, A., 339.

Sutherland, M. M. J. See Glen, W. L. Sutherland, W. M. See Macdonald, W. R.

Sutra, R., action of pyridine on maltose, A., 710.

Sutro, C. J., changes in teeth and bone in chronic fluoride poisoning, A., 364.

Sutter, H., Rottmayr, F., and Porsch, H., constitution of glauconic acids. IV., A., 315. Sutton, D. C. See Lueth, H. C.

Sutton, H., and Le Brocq, L. F., protection of metallic [magnesium] surfaces against corrosion, (P.), B., 1102.

Le Brocq, L. F., and Gilbert, W. V., anti-corrosive compositions, (P.), B.,

and Peake, T. J., pickling or etching baths for duralumin, B., 996.

See also Braund, B. K., and Willstrop, J. W.

Sutton, L. E., thioglycerol: a more stable thiol compound for use in healing wounds, A., 1142.

See also Marsden, R. J. B.

Sutton, R. J., Fritze, J. R., and Edison Gen. Electric Appliance Co., increasing the electrical resistance of fused magnesium oxide, (P.), B., 1001.

Sutton, R. W. See Ferranti, Ltd.

Sutton, T. C., Ambler, H. R., and Williams, G. IV., thermochemical properties of nitrous oxide, A., 279.

Sutton Manor Collieries, Ltd., Part, J. R., and Macpherson, H., fuel, (P.), B., 1138.

Suvorovskaja, N. A. See Paksin, L. N. Suwa, T., alcohol[-petrol] motor fuel, B., 178.

Suzman, M. M. See Segal, B. Suzuki, F. See Gen. Electric Co.

Suzuki, Fumio, extracting morphine from organ tissues, especially blood, A., 1135. Suzuki, G., electrical contact materials,

B., 329.

Suzuki, II. See Kondo, II. Suzuki, K. See Aoyama, Shin-ichi.

Suzuki, Kakuwo, and Ishii, Minoru, biochemical study of the juice of the cane plant, B., 1118. Microchemical determination of sucrose and reducing sugars in cane, B., 1118.

and Kenjo, M., volumetric determination of potassium by the sodium cobaltinitrite method, A., 1352. Waterculture experiments with [sugar-]cane plants, B., 660.

and Tanabe, T., use of chlorine as [sugar] juice clarifying agent, B., 1063.

Suzuki, M., abrasion in cast iron, B., 644. See also Matsunawa, S.

Suzuki, S. See Kita, G.

Suzuki, Saburo, effect of pyruvic acid on blood-oxalic acid, A., 223. Hyperoxalæmia in acute eczema and dermatitis, A., 231.

Suzuki, Shigeo, digestion of foods. V. Synthetic fats, A., 103.

Suzuki, Takamura. See Nagai, S. Suzuki, Tamotsu, peroxidase reaction. LIV. Prolongation of the rapid peroxidase reaction of blood-leucocytes as a sign of avitaminosis-B. LV. Prolongation of minimum peroxidase staining time as an early sign of avitaminosis-B: mechanism of the prolongation. LVII. Effect of urine of lactating women on leucocyte peroxidase: relationship with avitaminotic urine, A., 636.

and Takamatsu, A., peroxidase reaction.
LVIII. Effect of urine extract on leucocyte peroxidase: early laboratory finding of avitaminosis-B, A., 636.

Suzuki, Toshio. See Tanaka, Yoshio. Suzuki, U., Hirao, S., and Ikeda, R., vitamin-B contents of milk powder prepared by the Merrell-Soule process in Japan, B., 855.

Yoshinosuke, liver-asparaginase, Suzuki, A., 758.

Suzuki, Yutaka, oxidation of metallic magnesium at high temperature, A., 569.

Svanberg, O., Hannerz, E., and Wijkström, T., analysis of pasture from acid soils in Sweden, B., 618.

Svanöe, E., electrometallurgical and electrochemical industries based on hydraulic power in Norway in 1934, B., 699. Svarc, V. Sce Křepelka, J. H.

Svechnikov, V. N., and Gridnev, V., effect of titanium on polymorphic transformations in iron, A., 928.

Svedberg, T., the ultracentrifuge and its applications, B., 79.

and Eriksson-Quensel, I. B., hæmocyanin in heavy water, A., 563.

See also Eriksson-Quensel, I. B.

Svegintzev, S. K., fatigue of seams welded with electrodes having a chalk or a LIM covering, B., 745.

Sveindal, G. See Fuss, H.

Svenander, E. See Hedvall, J. A.

Svendsen, S. S., and Burgess Labs., Inc., C. F., decomposition and further treatment of material [rutile] containing titanium dioxide, (P.), B., 593.

Svenska Ackumulator Aktiebolaget Jungner. See Mandahl, T. F.

Svensson, B., ferromagnetic increment of resistance of copper-nickel alloys, A., 280. Intensity variation in the fine structure of the Balmer lines Ha and HB, A., 397.

Sveshnikov, B., influence of the solvent on the kinetics of bimolecular reactions in solutions, A., 1209. Theory of photochemical reactions and chemiluminescence in solutions, A., 1214. Quenching of fluorescence of dye solutions by foreign substances. I., A., 1445.

Swain, A. F., and Buckner, R. P., control of orange worms, B., 661. Fumigation of citrus with a form tent, B., 1117.

See also Pratt, F. S. Swain, R. C. Sec McBain, J. W.

Swain, R. E., and Johnson, A. B., effect of sulphur dioxide on wheat development,

Swallen, L. C., Irey, K. M., and Commercial Solvents Corp., synthetic resin, (P.), B., 288. Swallow, J., distillation treatment of

materials containing hydrocarbons, (P.), B., 1031.

Greenstreet, C. J., and Brocklebank, E. W., distillation treatment of materials containing hydrocarbons, (P.), B., 1078.

Swallow, W., preventing corrosion, B., 1210. Swan, C. See Work, L. T.

Swann, S., jun., electro-organic chemical preparations, B., 747.

Read, H. J., and Howard, F. C., electrolytic reductions of organic compounds at alloy cathodes. I. Reduction of aliphatic ketones to hydrocarbons at cadmium amalgams, A., 687.

Swann, W. F. G., can protons represent the primary cosmic rays at sea level? A., 542. Deviation in passing through magnetised iron of highenergy charged particles, A., 658. Energy transmission by high-energy electrons, A., 917. Origin of the hardening of cosmic rays in passing through matter, A., 1046.

and Locher, G. L., measurements of the angular distribution of cosmic-ray intensities in the stratosphere with Geiger-Müller counters, A., 1174.

Swann, W. F. G., and Ramsey, W. E., ionisation spurts resulting cosmic-ray entities, A., 133.

See also Danforth, W. E., and Montgomery, C. G.

Swann Fertilizer Co. See Klugh, B. G. Swann Research, Inc. See Booth, C. F., Gerber, A. B., Jenkins, R. L., Logue, P., McCullough, C. R., Masin, J. S., Moose, J. E., Moss, H. V., and Udy, M.J.

Swanson, C. O., effect of harvest conditions on a few quality factors in wheat, B., 343. Physical tests to determine quality

in wheat varieties, B., 518.

Swanson, E. E., detoxification of strychnine by sodium pentobarbital, A., Sodium propylmethylcarbinylallylbarbiturate, a short-acting hypnotic, A., 891.

and Chen, K. K., pharmacological action

of coriamyrtin, A., 1416.

Hargreaves, C. C., and Chen, K. K., assay of ergotocin, B., 123. Sec also Chen, K. K.

Swanson, P. P., Nelson, P. M., and Haber, E. S., vitamin-A content of sweet potatoes of the prolific variety grown with varying fertiliser treatments, B.,

Storvick, C. A., and Smith, A. H., inorganic salts in nutrition; changes in kidneys of rats fed on a diet poor in inorganic constituents, A., S89.

See also Haber, E. S., and Nelson, P. M. Swanson, W. W., and Iob, L. V., mineral metabolism in osteogenesis imperfecta, A., 506.

Sward, G. G., optical dispersion of tung oil as an index of purity, B., 558. Frosting of tung oil, B., 558. Severe test for "gas checking" [of varnish], B., 607. Abrasin oil (Mu oil) from Aleurites montana, B., 648. Improved hardness rocker [for paint films, etc.], B., 1055. Wrinkle finishes, B., 1108. and Hart, L. P., paint consistency, B.,

and Stewart, J. R., putty consistency, B., 650.

See also Gardner, H. A.

Swarts, F., catalytic reduction of organic fluorine compounds. III. Reduction of cyclohexyl fluoride, A., 712. Fluoro-cyclohexane, A., 712. Substitution of fluorine for other halogens by use of mercurous fluoride and iodine; preparation of methyl fluoride, A., 1359. Decomposition of cyclohexyl bromide in presence of mercuric bromide and the formation of cyclohexene polymerides, A., 1369. Action of bromine water on ethylenic compounds; action on cyclohexene, A., 1496. Swearingen, C. V., cleaning of filter sand,

B., 254.

Swedish Iron & Steel Corporation. Sec Weiller, P. G.

Sweek, W. O., McGeorge, W. T., Benroth, J. S., Saunders, J. A., and Porter, H. H., art of irrigating and fertilising plants, (P.), B., 1224.

Sweeney, E. L., and Sands, A. E., removal of free sulphur from spent [iron] oxide, B., 1027.

Sweeney, O. R. See Wingfield, B.

Sweet, A. T., MacCarthy, J. D., and Gen. Manganese Corp., extraction of metals [manganese] from [low-grade] ores, (P.), B., 26.

Sweetland, E. See Van der Cook, R. E. Laboratories, Inc. See Barker, J. O.

Sweetser, R. H., slag control and the blast furnace, B., 410. Swenson, J. A., and Flint, E. P., distribu-

tion of compounds in Portland coment, B., 1154.

Swenson, T. L., preservation of food-stuffs, (P.), B., 812. [Determination of] papain, B., 1064.

See also Balls, A. K. Swerissen, H. T. See Shell Development

Swezey, J. A. See Shaw, H. R.

Swientoslawski, W., calorimeter measurement of continued heat effects, A., 181. Ebulliometry, A., 1482.

and Ramotowski, E., purification and determination of degree of purity of toluene, A., 461.

Wojciechowski, M., and Sapiro, ebulliometric investigation of impurity centents of succinic acid, proposed as a secondary standard for calorimetric measurements, A., 954.

Swierczewska, (Miss) M. See Centnerszwer, M.

Swift, C. E. See Bray, U. B. Swift, E. H., and Garner, C. S., use of the iodine monochloride end-point in volumetric analysis. III. Titration of thallous salts with permanganate, iodate, and ceric sulphate, A., 303.

Swift, R. W. See Forbes, E. B. Swift, T. B. See Maier, C. G.

Swift & Co., and McKee, H. H., treatment of meat [e.g., hams], (P.), B., 122.

and Walter, C. T., drying of material [soap] and a conveyor mechanism used in connexion therewith, (P.), B., 750. Soap products, (P.), B., 942.

Swift & Co. Fertilizer Works. See McCoy, C. H.

Swift, Levick & Sons, Ltd., Horsburgh, G. D. L., and Tetley, F. W., permanent magnets and alloys therefor, (P.), B., 552. Alloys for the manufacture of permanent magnets, (P.), B., 1162.

Swinburne, J., electromagnetic cores, (P.), B., 377.

Swindell Dressler Corporation. See Dressler, P. d'H.

Swindells, F. E., recent developments in fluoroscopic screens, A., 954.

Swinden, \hat{T} ., and Bolsover, G. R., controlled grain size in steel; effect on mechanical properties and suggestions concerning the theory involved, B., 1097.

Swindon, T., and Chesters, J. H., properties of open-hearth furnace chequer-bricks, B., 1207.

Swingle, W. W., Pfiffner, J. J., and Parke, Davis & Co., medicinal [adrenal] compound, (P.), B., 1068. See also Parkins, W. M.

Swings, P., search for bands of boron compounds in stellar spectra, A.,

and **Désirant**, M., spectra of early-type stars in the near ultra-violet region, A., 655.

Swinne, R., crystallisation of supercooled dielectric liquids in an electric field, A., 1053.

Swinney Brothers, Ltd. See Brown, T. T. Swirles, (Miss) B., relativistic self-consistent field, A., 266.

Swoboda, H. O., Metzger, W. F., and Swoboda, Inc., H. O., handling of materials, (P.), B., 47. Apparatus for treating materials, (P.), B., 47.
Swoboda, Inc., H. O. See Swoboda, H. O.

Swyngedauw, J., phenomena of electrofiltration in electrolysis of gels, A., 29. New electrochemical method of preparing proteins at the isoelectric point, A., 1396.

Sydnor, H. See Standard Oil Development

Sykes, $C_{\cdot,\cdot}$ and Evans, $H_{\cdot,\cdot}$ transformation in the copper-gold alloy Cu₃Au, A., 420. See also Walker, C. II.

Sykes, E. T., dried sugar-beet pulp for bacon pigs, B., 251. Nitrogenous manuring of sugar beet, B., 611.

Sykes, F. T., dyeing of felt hats, B., 589.

Sykes, G. See Coulthard, C. E.
Sykes, W. P., and Graff, H. F., cobalt—

molybdenum system, A., 790. See also Gen. Electric Co.

Sylva, F. See Giroud, A.

Sylvania Industrial Corporation, preservation of oils, fats, and waxes, and substances containing them, (P.), B., 1216.

See also Goldberger, F., Mendel, W., and Wallach, R. N.

Sym, E. A., action of esterase in presence of organic solvents, A., 637. Method of cnzymic ester synthesis, A., 1298.

Symons, J. W., Canadian versus American fluc-cured tobacco; comparison of chemical constituents and primary prices,

Symons, P. II., improvised micro-manipu-

lator, A., 446.
Symons, P. S., functions of priming paints, B., 159.

Syngala, Fabrik für Chemisch-Synthetische & Galenische Arzneimittel G.m.b.H., guaiacol compounds, (P.), B., 298.

Synge, J. L., collision problems and the

conservation laws, A., 7.

Syrkin, J. K., and Gladischev, A. T., kinetics of bromination of benzaldehyde, A., 165. Kinetics of bimolecular reactions in solution. II. Formation of sulphonium salts, A., 165.

and Volkenstein, M. V., Raman effect of fluosilicie acid, A., 136. Raman spectrum of iodide, A., 137. tetraethylammonium

See also Hellmann, H.

Syrokomsky, W. S., and Stiepin, V. V., new oxidation-reduction indicators. I. Phenylanthranilic acid (diphenylamineo-carboxylic acid), A., 949.

Syverton, J. T., and Berry, G. P., cultivation of the virus of St. Louis encephalitis,

A., 385.

Szabo, A. L. See Bergmann, E. Szabo, F. See Mezincescu, M. D.

Szabó, Z., ionic activities of sodium and potassium chlorides, A., 683. Thermodynamic derivation of diffusion potentials in concentrated solutions, A., 1206.

Száhlender, K., constituents of the seeds of Digitalis lanata, Ehrh., A., 1571.

Szakáll, A. See Atzler, E. Szántó, G. See Balassa, G.

Szanyi, I., composition of icc[-cream] pewder, B., 41. Composition of Hungarian beans, B., 121.

Szarvas, P. See Erdey-Grúz, T. Száva-Kováts, and Resch, K., crystallographic data for Hungarian copper pyrites, A., 307.

Szayna, A., and Sinclair Refining Co., hydrogenation of hydrocarbons, (P.), B.,

Szczepanski, C. See Bienka, E. J.

Szebellédy, L., and Bártfay, M., catalytic detection of manganese, A., 1479. and Clauder, O., micro-volumetric analysis with weight burettes, A., 815.

and Jónás, J., potentiometric volumetric analysis with three electrode pairs connected in series, A., 582.

and Tanay, S., detection of zinc with potassium ferricyanide and p-phenetidine, A., 1479.

Szécsényi-Nagy, E. Sce Süllmann, H. Szécsényi-Nagy, L. von, interaction of fructose and dinitrobenzene, A., 56. by Determination of benzene Pulfrich step-photometer, A., 126. Szeghö, F., determination of morphine

in opium preparations, B., 812.

Szegvari, A., and Amer. Anode, Inc., dispersion of solids [e.g., sulphur], (P.), B., 19.

See also Hansen, M. E.

Szejnman-Rozenberg, A., assimilation of iron during development of the chick embryo, A., 632.

Széki, J., and Romwalter, A., production of arsenic compounds and sulphur from copper sulpharsenate ores, B., 788.

Széll, L. G. von. See Patin, A. K. F. Szelöczey, J., effect of camphor on adrenaline reaction. I. Blood pressure. II. Dilatation of pupil and increase of blood pressure, A., 516. and Kolonits, B., effect of camphor

on adrenaline reaction. III. Permeability and adsorption, A., 516.

Szendi, B., and Papp, G., significance of histotrophy in the carbohydrate metabolism of the fœtus within the uterus, A., 1545.

Szent-Györgyi, A. See Rusznyák, S. Szentkiralyi, Z., preparation of quinquevalent arsenic, B., 667.

Szepsenwol, $J_{\cdot \cdot}$, impregnation of nervous system with silver, A., 126.

Szigeti, B. See Halban, H. von. Szigeti, P., influence of temperature on $p_{\rm H}$ measurements in alkaline media, A., 441.

Szilard, L., absorption of residual neutrons, A., 131. Transmutation of chemical elements, (P.), B., 554. Szilvinyi, A. See Verein. Mautner Mark-

hof'sche Presshefe Fabriken.

Szmidt, G. See Krause, A. Szmyt, M. See Hrynakowski, K.

Szmytówna. See under Szmyt. Szniolis, A. See Just, J. Szollosy, E. See Régnier, J.

Szongott, I., pharmaceutical application of highly active digitalis leaf-powders, B., 858. Activity of aqueous digitalis extracts prepared in various ways, B., 858.

Szper, J., and Gajewski, Z., conductivity of calcium, strontium, and barium chlorides in anhydrous glycerol, A., 292.

Szperl, L., and Chmielnicka, A., action of sulphur on organic compounds. XII. Action of sulphur on coumarin, A., 997.

and Ozieblo, L., action of hydrogen sulphide on acid chlorides. VI. Hydrogen sulphide and 3:4-dimethylbenzoyl chloride, A., 202.

and Wasilewska, M., action of secondary amines on dibenzoyl disulphide, A., 1106.

Szpingier, G. See Henle, W. Szreniawski, J. Sec Broniewski, W. Szulc, N. See Peczalski, T. Szympson, S. See Seyewetz, A. Szyszka, G. See Straus, F.

T.

Tabakforschungsinstitut für das deutsche Reich. See Keenig, Paul.

Tabary, A., coloured bitumen emulsions. (P.), B., 680.

Taber, S., origin of cyanite, A., 448.
Tabern, D. L., and Volwiler, E. H., N.

alkyl- and N-aryl-substituted barbituric acids, A., 1267. See also Volwiler, E. H.

Tabet, M. See Levi, G. R. Tabije, D. See Adriano, F. T.

Taboury, M. F., and Pajeau, R., beryllium bromide as a catalyst in bromination of

benzene, A., 461.

Tabuchi, K., influence of cell constituents of the pancreas on external secretion of the pancreas. I. Influence of parenteral introduction of pancreas cell constituents into dogs with complete pan-creatic fistulas. II. Influence of cell constituents of other organs. III. Influence of purified extracts of panereas and other organs. IV. Mechanism of hypersection and nature of the exciting

agent, A., 374.

Tabuteau, J., application of Raman effect to cis-trans isomerism of methylcyclohexanols, A., 11.

Sce also Dupont, G.

Tachibana, K., action of guanidine derivatives on constituents of blood, A., 91. Influence of harmine on blood-sugar picture in rabbits, A., 92.

Tachihara, Y., and Nihon Denchi Kabushiki Kaisha, storage-battery plates, (P.), B.,

Tacke, B., chemical properties of moor soils, B., 850.

Taconis, K. W. See Keesom, W. H. Tada, C. See Mizuta, M.

Tadokoro, K. See Shikata, M.

Tadokoro, T., mechanism of fermentation of arabinose by Aspergillus oryzæ. I., A., 639. Influence of hydrogen acceptors on fermentation of fucose by Aspergillus oryzæ, A., 1026. Fermentation of arabinose and fucose by Aspergillus oryzæ. II., A., 1154.

and Yoshimura, K., polysaccharides of Iridaa laminarioides. III., A., 1434. Yoshimura, K., and Yanase, M., polysaccharides of Iridæa laminarioides.

II., A., 534.

Tadokoro, Y., testing and effect of reducing

gases on grog bricks for blast furnaces, B., 739.

Taeschner, F. See under Taeschner Chem .-Pharm. Fabr.

Taeschner, K. E. See under Taeschner Chem .- Pharm. Fabr.

Chemisch-Pharmazeutische Taeschner Fabrik, production of barbituric acid compounds, (P.), B., 860.

Täufel, K., and Bauer, Oskar, relation between fatty and essential oils; B., 1004.

De Mingo, M., and Thaler, H., determination of activity of honey diastase, B., 614. Determination of the acetyl value of fats, B., 1105.

Täufel, K., and Sampietro, C., employment of Selivanov's reaction in bromatological analysis, B., 808.

and Schoierer, K., determination of citric acid by conversion into acctone. II., A., 824.

Thaler, H., and Bauer, Oskar, seed fat of ruo (Ruta graveolens). II., B.,

Thaler, H., and Kopp, G., detection of sucrose in vegetable material, B.,

Thaler, H., and Löweneck, M., degradation of fatty acids by mould fungi, B., 284.

Thaler, H., and Schreyegg, H., squalene as a constituent of yeast fat, B., 378. Thaler, H., and Starke, K., Kjeldahl decomposition using selenium, A., 694. Sec also Bleyer, B.

Tatel, V., extraction of zine by dry way, B., 198.

and Lampe, G., action of sodium bisulphate on arsenical ores, B., 889.

Taffs, \hat{H} . J., preparation of tin and tin alloys for microscopical examination, A., 1481.

Taft, D. H. See Schiefer, H. F.

Taft, R. See Stareck, J. E.

Tage-Hansen, E. See Dam, H.
Tageeva, N. V., origin of bore-hole water,

Tahvonen, P. E., intensity of reflexion of X-rays from calcite, A., 1185.

Tai, L. C. See Bates, L. F. Tainter, M. L., Cutting, W. C., and Hines, E., effects of moderate doses of dinitrophenol on energy exchange and nitrogen metabolism of patients under conditions of restricted dietary, A.,

See also Cameron, W. M., Galgiani, J. V., Newman, H. W., and Pedden, J. R.

Tainton, U. C., coating of ferrous articles with zinc, (P.), B., 153. Cleaning or descaling of metal, (P.), B., 939. Hydrometallurgical recovery of lead, (P.), B., 999.

and Harris, F. W., zinc alloy, (P.), B., 999.

Taira, T., azulene from sesquiterpene alcohol of fusel oils, B., 954.

Tait, W. H. See Campbell, (Sir) John. Taitz, E. M. See Poputnikov, F. A.

Taitz, N. Y., heating of steel alloys, B.,

Tajima, K. See Katsura, S. Tajmal, Ltd., oxychloride cements, (P.), B., 596.

Takahara, M. See Nagai, S.

Takahashi, E., and Masuda, G., vitamin-A and -B of maize, A., 118.

Takahashi, S., emetic action of apomorphine in rabbit lymph, A., 107.

Takahashi, Takehiko, anaërobic decomposition of hexosephosphoric acids by animal tissues. III. Hydrolysis by phosphatase, A., 521.

Takahashi, Toshio. See Fujise, S. Takai, T. See Ishikawa, Fusao.

Takamatsu, A., detoxicating hormono of the liver. LIX. Inhibiting effect of yakriton on hyperglycæmic [?] action

of insulin, A., 645.
and Uga, Y., detoxicating hormone of
the liver. LVII. Inhibiting effect of yakriton on hypoglycæmic action of insulin, A., 645.

See also Suzuki, Tamotsu.

Takamatsu, M., embryochemistry of Hynobius, A., 498. Calcium and magnesium content of flesh of various animals, A., 499. Carbohydrate and fat metabolism during development of Hynobius eggs, A., 511.

and Kamachi, T., embryochemistry of amphibia. IX. Urea and uric acid in incubated eggs of giant salamander, A., 508.

See also Tsunoo, S.

Takamine, T., and Suga, T., reversal of the neon lines 744, 736 A, A., 537. Intensity anomalies in the Lyman series of hydrogen, A., 769. Lyman series absorbed by oxygen bands, A., 1167. Relative intensity of the neon lines 744 and 736 A against their higher members, A., 1167.

Takamiya, E., castor bean lipase. VII. Relation between activity of highly active Ricinus lipase and some oxidising and reducing substances. IX. Enzymic oil synthesis and its activating substance, A., 378, 1025. Castor bean lipase and its activator, A., 895.

Takané, K. See Kôzu, S. Takani, A. See Kitagawa, M.

Takano, M., hydrogenation of fish oil. V. Formation of an unsaturated fatty acid of the linolenic series in hydrogenation of metbyl clupanodonate, A., 189.

 Takaoka, M. See Saito, Kojiro.
 Takayama, Y., amino-acids and related compounds. IX. Electrolytic oxidation of proline and y-aminobutyric acid, A., 828.

Takebayashi, M. See Urushibara, Y. Takeda, E., effect of muscular exercise on biological processes, A., 507.

 Takeda, Kenichi. See Kondo, H.
 Takeda, Kenji, "bukuryo," sclerotia of Pachyma Hoelen, Rumph. I. Chemical structure of β -pachyman, the polysaccharide obtained from "bukuryo," and its determination. III. Chemical constituents. VII. Production of tetraacetylglycuronic acid by acetolysis of β-pachyman in presence of perchloric acid, A., 57, 102, 123.

 Takeda, S. See Taketomi, N.
 Takeda, Y., and Takeuchi, O., properties of Aspergillus species. II., A., 1421. See also Nakazawa, R.

Takei, M., properties and now uses of senseki, B., 675.
Takei, S., and Imaki, T., odorants of raw

sugar. I. Volatile organic acids in cane molasses. II. Stigmasterol and syringic acid, B., 424, 1173.

Sakato, Y., and Ono, M., odorous substances of green tea. VI. and VII. Constituents of tea oil, A., 125, 1307. See also Miyajima, S.

Takei, T. See Kato, Yogoro.

Takemura, K., nickel alloys in Diesel locomotives and in railcars, B., 1210. Takemura, W. Seo Hachihama, Y.

Taketomi, N., invertase. II. and III., A., 243, 1297.

and Takeda, S., purification of koji amylase by precipitation, A., 1297. Takeuchi, K. See Sahashi, Y., and Zaidan Hojin Rikagaku Kenkyujo.

Takeuchi, O. Sce Takeda, Y. Takeuchi, S., p_H of Hortega cells, A., 1137. Takeuchi, T. See Ueno, S. Takiguchi, Y., Davis' modified method of

predicting germinative power of seeds, В., 386.

Takimoto, M. See Kamei, S.

Takiura, K. See Hoshino, T.
Takizaki, Y., effects of drugs on autonomic nervous system, and on protein metabolism in normal and hypophysectomised dogs, A., 375. Takizawa, M. See Tanaka, Yoshio.

Takolander, M. R. A., Portland cement.

etc., (P.), B., 195.

Taku, T. See Fujita, A.

Tal, T. Y. See Loh, V. T.

Talalay, J., rubber products, more particularly of porous and spongy masses and articles, (P.), B., 1220.

and Magna Rubber Co., rubber goods, (P.), B., 657. Phosphatide condensation products, (P.), B., 804.
Talbot, S. B. See Culbertson, J. T.

Talbot, W. F. See Esselen, G. J.
Talbott, J. H., Jacobson, B. M., and Oberg, S. A., electrolyte balance in acute gout, A., 752.

and Sherman, J. M., urate distribution in blood, A., 1400.

Talce-Niedia, D., catalase activity of lactic acid bacteria, A., 760.

Talenti, M., and Ragno, A., mineral water of the "sulphurous spring" of Alfredcna (Aquila), A., 957. Alimentary herbs. I., B., 617.

Tallman, A. P., neon tubes, (P.), B., 1002. Talmud, S. L. See Shukov, I. I.

Talvitie, A., anhydrous glyoxylic acid, A.,

Tam, R. K., and Magistad, O. C., decomposition of pineapple trash [in soil] under field conditions, B., 806.

Tamai, M., peroxidase, A., 758. Tamaki, H. See Nishina, Y. Tamaki, T. See Tsuji, T.

Tamamushi, B., thixotropy of a suspension of Japanese acid earth, A., 1202. Thixotropy of beeswax suspensions, B., 1004.

Tamamushi, Y., homologues of histamme and their pharmacological actions, A., 1268.

Tamaru, K. See Honda, K.
Tamaru, S., and Tanaka, Yasuo, preparation of dimethylacetal by condensing methyl alcohol with acetylene, A., 453.

Tamasaki, K. See Shibata, Y. Tamele, M. W., and Ryland, L. B., potentiometric determination of mercaptans [in petroleum], B., 307.

Tamelet, L. See Sendrail, M.

Tamiya, H. See Yamaguehi, Seizaburo.

Tammann, G., solubility of metals in crystals of halides, A., 282. Consequences of cold-working [metals] and their disappearance with rise in temperature, B., 328.

and Boehme, W., velocity of corrosion of duralumin, B., 200. Separation from supersaturated mixed crystals in a temperature gradient, B., 328.

and Jaacks, H., state of electrolytically separated metals, A., 785.

and Müller, W., determination of the elastic limit in indentation tests as an adjunct to hardness measurements, B., 793.

and Warrentrup, H., corrosion protection of iron by arsenic, B., 888.

Tamminen, K. See Brander, E. Tamura, J. T., and Boyd, M. J., keten, a new reagent for detoxification of vaccine, A., 498.

Tamura, K., and Kihara, G., influence of o-, m-, and p-hydroxybenzoic acid on the gaseous metabolism of the kidney in relation to urine formation, A., 1145.

Tamura, T. See Ishida, Y.

Tan, K. Y. See Ts'ai, L. S.
Tanabe, T. See Suzuki, Kakuwo.

Tanahashi, T., Shoji, T., and Otani, M., developments in electrochemical industry in Japan, B., 699. Tanago, J. G. See Portillo, R.

Tanaka, Keikichi, and Awano, S., J-S diagrams for combustion gases of rich mixture, B., 402.

Tanaka, Kenzo, and Tien, H. Y., transformation from vitreous to metallic selenium, A., 440.

Tanaka, Masamichi, after-effect of aluminium bombarded by electrons, A., 129.

Tanaka, Munenari, anthragallol esters, A., 338. Conversion of 2-aminoanthraquinono into indanthrone, A., 338. Isolation of solid fibro from rice straw, B., 586.

Tanaka, Shosaburo, alkaline storage battery. X. Electrolysis of alkali zincate solution, B., 332.

Tanaka, Shosuke, acetic bacteria produced in Formosa. VI. and X., A., 1154, 1422.

Tanaka, T. See Hosoya, S. Tanaka, Yasuo. See Shibata, Y., and

Tamaru, S.

Tanaka, Yoshio, fuels for high-speed internal-combustion engines, B., 532.

and Kobayashi, R., non-freezing lubricants. IV. Production by dechlorination of chlorinated liquid paraffin or by adding dechlorinated oils resulting from condensation products of chlorinated paraffin-naphthalene to freezing lubricating oils, B., 1029.

Kobayashi, R., and Furihata, M., chlorination of hydrocarbon oils and dechlorination of the chlorinated oils produced. I. Liquid paraffin, B., 435.

Kobayashi, R., and Tsukuda, T., non-freezing lubricants. III. Production by adding solid fats, solid waxes, or depolymerised oil produced from caoutchouc, B., 1029.

Kobayashi, R., Tsukuda, T., and Ono, Takeo, viscosities of lubricating oils at low temperatures. I. and II., B., 627. Viscosities of lubricating oils at low temperatures. III. and IV., B., 776.

Kuwafa, T., and Suzuki, Toshio, balata resin. I. Crystalline constituents of Surinum sheet balata resin, A., 207.

and Takizawa, M., lubricating oils. I. Viscosities of mineral lubricating oils at low temperatures with lowered m.p. caused by addition of small amounts of hardened fish oil. II. Viscosities at low temperatures and the m.p. of mineral lubricating oils containing added oils, B., 967.

Sec also Fujicka, Y. Tananaev, I. V., and Savtschenko, G. S. determination of fluorine in artificial

cryolite, B., 640.

and Tschrelaschvili, S., solubility of alkaline-earth fluorides in acids, A., 1062.

Tananaev, N. A., specific reaction for bismuth by production of the monoxide, A., 1083. Induced reduction by silver ion for rapid detection of mercuric, silver, and stannous ions, A., 1221.

and Budkevitsch, A. A., detection of oxalate ions, A., 190. Drop method of detection of ammonium, A., 694.

and Buitschkov, M. K., rapid gravimetrie determination of silicio acid, B., 190.

Tananaev, N. A., and Ivanova, A. I., drop colorimetric determination of copper, A., 695.

and Ponomarev, V. D., volumetric determination of mercuric chloride by means of lead sulphide, A., 43.

and Rabinovitsch, L. M., drop method of detection of antimony, A., 696.

and Tananaeva, A. V., drop method of detection of bismuth, A., 444. Drop reaction for zirconium, A., 813.

Tananaeva, A. V. See Tananaev, N. A. Tanase, Y. Seo Asabina, Y.

Tanasesco, G. See Ciocalteu, V. Tanasescu, E. See Tanasescu, I.

Tanasescu, I., and Craciunescu, E., photochemical reactions of o-nitrobenzylideneacetals. IX. o-Nitrobenzylideneacetals of the oses. XI. Benzylideneacetals of sugars and glucosides, A., 593, 1234.

and Ionescu, M., photochemical reactions of o-nitrobenzylideneacetals. Benzylideneacetals of sugars glucosides, A., 1234.

and Ramontianu, E., acridones. Acridol, a tautomeric form of acridone. VIII. 10-Keto- and 10-keto-5-hydroxyacridine, IX. Acridine 10-oxide and 5-hydroxyacridine 10-oxide, A., 735, 1266, 1520.

and Silberg, A., action of acid chlorides on Schiff's bases, A., 470.

and Suciu, (Mlle.) M., condensation of 5-chloro-2-nitrobenzaldehyde with aniline, A., 1509.

and Tanasescu, E., condensation of o-nitrobenzaldehyde with m-nitroacetophenone, A., 1110.

Tanasoka, T. See Dimitriu, C. C. Tanay, S. See Szebellédy, L.

Tanchico, S. S., products from coconut-

oil wax, B., 107. Tandon, S. P. See Dhar, N. R. Tang, C. C. See Pan, Z. H.

 Tang, P. S., kinotics of cell respiration.
 I. Rate of oxygen consumption by Saccharomyces Wanching as a function of p_H, A., 896.

and Chang, C. S., iodine contents of Chinese marine algæ, A., 258.

and Sung, P. N., change in optical rotation of glucose in dilute solutions of boric acid, A., 457. See also Tang, T. H.

Tang, T. H., constitution of the Chinese drug, Hseh Tuang seed, A., 1435, and Chao, Y. H., Chinese drug "Hsuan Tsao Ren," B., 1016.
Kou, F. C., and Tang, P. S., iodine

content of marine algo of the Shantung coast, A., 1307.

Tang, Y. C., Wang, Y. W., and Wang, H. L., formation of acetic acid from ginkgo wood (Ginkgo biloba), A., 123. and Yen, W. H., determination of cellulose by the modified single-stage process at a higher temperature, B.,

Tang-sü. See Kuschinsky, G.

586.

Tange, U., and Michi, K., nutritive effect of tunny, ox liver, and yeast on rats, A., 1429.

Tangerman, E. J., sprayed metal and its uses, B., 328.

Tani, Y., plastic deformation of metals and the true ultimate tensile strength, B., 1158.

Taniguchi, K., effect of silicon on a chilled roll, B., 197.

Taniguchi, M., and Sakurada, I., diffusion of compounds of high mol. wt. IV. Rod-like molecules, A., 286. Electro-kinetic investigation of organosels of highly polymerised natural substances, A., 1461. Fractional solution of secondary cellulose acetate and viscosimetric investigation of the solution, B.,

Tankard, J. See Tootal Broadhurst Lee Co. Tankó, B., hexose phosphates produced by higher plants, A., 910.

Tanner, C. See Rieke, R.

Tanner, F. W. See Michael, V. M., and Ruyle, E. H.

Tanner, L., composition of veined and normal beechwood, B., 740.

Tanner, R. R., Lodeesen, H. J., and Metal Finishing Res. Corp., coated non-ferrous metal, (P), B., 999.

Thompson, J. S., and Metal Finishing Res. Corp., coated copper article, (P.), B., 646.

Tanner, W. B. See Pearce, J. N.

Tanning Process Co., removal of liquid materials from hides or skins, (P.), B., 1058.

and Merritt, M. M., tanning of hides and skins, (P.), B., 609.

See also Merritt, M. M.

Tanno, T., catalytic hydrogenation of sucrose. I. Hydrogenation with reduced nickel as catalyst, A., 827.

Tanret, G., comparative velocities of hydrolysis of certain glucosides under the influence of ultra-violet rays, acids, and enzymes, A., 572.

See also Guillaume, A. Tansley, K., effect of vitamin-A deficiency on development of the retina and on the first appearance of visual purple, A., 903.

See also Bayliss, L. E.

Tanteri, B. Sec Giammona, A.

Tanzi, B., action of arsenicals on glycolysis of the isolated rabbit's heart, atoxyl on enzymic glucose degradation, and glucose on lipin degradation due to atoxyl in the artificially-circulated heart, A., 1292.

Tao, L. O., and Mo, W. S., equilibrium between sulphates of cobaltic chloropentammine and their sulphuric acid solutions, A., 564.

Tao, T. See Kao, Chung-Hsi.

Tao, W., high-grade, sea-water-resistant

cement, B., 193.
Taormina, S. C. See Young, C. B. F.
Tapadinhas, J. See Jacobschn, K. P.

Tapernoux, A., effect of alkali carbonates added to milk on preparation of the calcium chloride serum, B., 1229.

Tapia, E. See Ribas, I. Tapie, J. F., mercury condenser, (P.), B.,

Tapp, T. C. See Heath, A. R. N.Tapping, F. F. See Reynard, O.

Tapsell, H. J., Becker, M. L., and Conway, C. G., behaviour of five cast irons in relation to creep and growth of elevated temperatures, B., 741. See also Jenkins, C. H. M.

Tarajan, V. See Rotinjantz, L. A. Taran, E. N., stability of standard potassium thiocyanate solutions, A., 42. Gravimetric determination of the titre

of silver nitrate solutions, A., 812. Taranenko, I., determination of free sulphur in rubber by the iodometric

method, B., 655.

Taranenko, I., and Kuvaldina, L., causes of destruction of the refractory material during process of manufacturing carbon black, B., 724.

See also Krestinskaja, V. N.

Tarasenkov, D. N., and Babaeva, A. V., vapour pressure of the binary mixtures (A) PbCl₂ + CuCl₂ and ZnCl₂ + CuCl₂, (B) ZnCl₂ + PbCl₂, in an atmosphere of chlorine, A., 931.

and Bogoslovskaja, A. V., dissociation of NiS, A., 30. Vapour pressure of the binary system, PbCl₂-AgCl, A., 675.

Grigorovitsch, A. N., and Bogoslovskaja, A. V., vapour pressure of compounds of metals, A., 47.

and Koshmjakov, P. A., vapour pressure of zinc, lead, cadmium, cuprous, and silver chlorides, A., 21.

See also Rakovski, A. V.

Tarasov, B. K., and Alexandrov, L. A., chemical composition of hydrogenated gasoline, B., 356.

Tarasov, L. P., and Warren, B. E., X-ray diffraction study of liquid sodium, A., 668.

Tarasova, K. G. See Alexeevski, E. V. Tarbell, D. S. See Bartlett, P. D.

Tarbet, W. G., and Aluminium Plant & Vessel Co., pasteurisation, sterilisation, or similar treatment for milk and other liquids, (P.), B., 81.

Tarján, E. See Gen. Electric Co.
Tarlé, M., distribution of alkaloids in Ephedra sinica (Mn-Huang), A., 125. Adsorption velocity of active carbon, A., 569. Catalytic preparation of sulphuryl chloride, B., 493. Soya bean and casein, B., 665.

Tarnanen, J. See Virtanen, A. I. Tarr, A. L., annealing twins in ferrite, B.,

888. Tarr, F. G. A. See Smith, H. Grayson.

Tarr, H. L. A., organism of European foul-brood of bees, A., 384. See also Davis, J. G.

Tarr, L. W., plastics in chemical industry, B., 68.

Tarr, W. A., and Keller, W. D., dickite in Missouri, A., 817.

Tarras-Wahlberg, B., histamine or a similar substance in rabbits' blood, A., 1283. Humoral anti-adrenaline regulation, A., 1415.

Tarschisch, L., quantum statistics of melting, A., 673.

Tartakovskaja, V. See Usanovitsch, M.

Tartakovski, P., energy levels of electrons in crystals, A., 1177.

and Poddubni, V., U centres in alkali halide crystals, A., 137.

Tartakovski, V. J., determination of magnesium metal, magnesia, and magnesium fluoride in products of electrolytic recovery of metallic magnesium, B., 329. Tartar, H. V. See Reed, R. M., and Sivertz, V.

Tartarinova, N. See Anikin, N. Tarutin, P. P., irradiation of wheat with ultra-short waves, B., 902. Biochemical influence on wheat of ultra-short waves, B., 902.

Tarwater, U. K., greasewood product, (P.), B., 161.

Taschek, T., and Osterberg, H., crystalline symmetry and shear constants of Rochelle salt, A., 1328.

Tashiro. C. See Aoyama, Shinjiro. Tashiro, T., and Kato, Yasujiro, apparatus with two thermionic vacuum tubes for

automatic titration, A., 815.

Tasman, A., determination of formic, acetic, and propionic acids in bacteriological culture media, A., 1436.

and Brandwijk, A. C., metabolism of C. diphtheriæ. I., A., 1423.

Tata, G., follicular content of urine in childbed, A., 1302.

Tatarinova, L. I. See Pinsker, S. G. Tatarskaja, R. I. See Jakimov, P. A.

Tatarski, E. S. See Stefanovski, A.

Tate, F. G. H., and Warren, L. A., determination of moisture content by distillation with liquids immiscible with

water, B., 768. Tate, J. T. See Vaughan, A. L. Tate & Lyle, Ltd. See De Whalley, H. C. S.Tateishi, C., influence of administration of tonsil extracts on sugar excretion in rabbits, A., 516.

Tatievskaja, E. See Tschufarov, G. Tatsumi, M., Nagao, Y., Okamura, K., and Gamo, J., occurrence of vitamin-Cin cerebrospinal fluid and aqueous humour, A., 1033.

Tattersall, H. J. See Imperial Chem. Industries.

Tattersfield. F., fish-poison plants as insecticides, B., 612.

and Martin, J. T., evaluation of rotenonecontaining plants. I. Derris elliptica and D. malaccensis, B., 341.

Tatton-Hibbs, S. F., milling of grain, (P.), B., 74.

Tatu, H., use of drying oils in dressing artificial silk, B., 367.

Tatum, E. L., and Peterson, W. H., fermentation method for production of d-lactic acid, B., 167.

Peterson, W. H., and Fred, E. B., enzymic racemisation of optically active lactic acid, A., 1560.

Wood, H. G., and Peterson, W. H., growth factors for bacteria. V. Vitamin- B_1 , a growth stimulant for propionic acid bacteria, A., 1560.

Tatzel, M. See Graf, R. Taube, W. See Meyer, Julius. Tauber, H., selective adsorption of enzymes by cellulose, A., 758.

See also Kleiner, I. S. Tausk, M., and De Fremery, P., effect of follicular hormone on ossification in castrated dogs, A., 644.

See also De Fremery, P. Tauson, A. O., effect of chlorination on water organisms, B., 222.

Tauson, H., and Winchester Repeating Arms Co., basic lead trinitroresorcinol, (P.), B., 1182.

Tavasci, B., system calcium oxide-ferric oxide, A., 1339. Constitution of cement clinkers; system CaO-Al2O3-SiO2 and its application to the study of cement clinkers, B., 320. Constitution of ceramic products, B., 885.

Tavaststjerna, N. See Remesov, I. Taveau, R. de M. See Texas Co.

Tawarada, A., production, consumption, and some chemical properties of Ube coal, B., 864.

Tawde, N. R., intensities in the bands of the violet cyanogen system, A., 544.

Naik, Y. G., and Desai, D. D., technique of far infra-red investigations, A., 814.

and Patankar, V. S., iron are spectrum in the infra-red, A., 654. Taxaco Salt Products Co. See Martin,

O. V. Taylor, A. A. See Manning, A. B. Taylor, A. B., e.m.f. in biological systems. V. Effect of various nitrogen-oxygen and carbon monoxide-oxygen mixtures on e.m.f. and oxygen consumption of frog skin, A., 888.

and Boell, E. J., e.m.f. in biological systems. IV. Effect of carbon mon-

oxide on e.m.f. of frog skin, A., 372.

Taylor, A. C., brilliant blue F.C.F., a new dyo for diagnostic gastrointestinal studies, A., 1307.
Taylor, A. M., Maxwell effect in colloids,

A., 287.

Taylor, A. R. See Parkins, W. M. Taylor, A. W. C. See Goodeve, C. F.

Taylor, C., Weiger, J. A., and Sieger, G. N., preparation and composition of rods of hard facing material [for surfacehardening cast iron], (P.), B., 239.

Taylor, C. B., microbiology of podsol soil profiles. III. Bacteria found in separate horizons, B., 70. Short-period fluctuations in numbers of bacterial cells in soil, B., 340.

See also Gray, P. H. H.

Taylor, C. C. See Leo, H. T. Taylor, C. S. See Aluminum Co. of America.

Taylor, E. G. See Coates, J. E.Taylor, E. M. See Hoon, R. C.

Taylor, E. R. See Eastman Kodak Co. Taylor, F. See Cellulose Acetate Silk Co. Taylor, F. H. L., and Adams, M. A.,

determination of carbamide by the Folin distillation method; determination by steam-distillation, A., 829. Chase, D., and Faulkner, J. M., deter-

mination of reduced ascorbic acid in blood-serum and plasma, A., 1159. See also Capps, R. B., and Patek, A. J.,

jun.

Taylor, F. L. See Smith, L. I.

Taylor, F. M. H., coke for the open grate, B., 530.

Taylor, G. A. See Taylor & Sons, Ltd. Taylor, G. B. See Du Pont de Nemours & Co., $E.\ I.$

Taylor, G. E. See Gen. Chem. Co. Taylor, G. F. See Gen. Electric Co.

Taylor, G. L., increase of globulin in diphtheria antitoxins, shown by the precipitation reaction, A., 1010.

and Adair, (Mme.) M. E., precipitation reaction [antisera], A., 1010. See also Adair, (Mme.) M. E.

Taylor, G. W., effect of ethylurethane on bacterial respiration and luminescence, A., 897.

Taylor, H., physiological properties of trichloroethylene, A., 757.

Taylor, H. A., thermal decomposition of divinyl ether, A., 568.

and Ditman, J. G., decomposition of ethylamine and diethylhydrazine, A.,

and Juterbock, E. E., thermal decomposition of triethylamine, A., 33.

and Vesselovski, V. V., thermal decomposition of nitromethane, A., 33.

Taylor, H. F., interaction of sulphur with

hydrocarbons, B., 1029.

Taylor, H. J., tracks of swift nuclei in photographic emulsions, A., 658.

and Dabholkar, V. D., ranges of a-particles in photographic emulsions, A., 401. Tracks of a particles of thorium and its products, A., 657.

Taylor, H. M., selection rules in nuclear radiation, A., 920.

See also Hulme, H. R.

Taylor, H. S., Morikawa, K., and Benedict, IV. S., activation of specific bonds in complex molecules at catalytic surfaces, A., 168.

Sec also Brickwedde, F. G., Burwell, R. L., jun., Du Pont de Nemours & Co., E. I., Eyring, H., Jungers, J. C., and Morikawa, K.

Taylor, I. R. Sec Abramson, H. A.Taylor, J. See Imperial Chem. Industries. Taylor, J. A., and Cameron, F. K., utilisation of alunite through alkali fusion, B., 1150.

See also Barrett, Elliott P.

Taylor, John Bailey. See Le Blanc, F. Taylor, John Bradshaw. See Langmuir, I. Taylor, J. F. M. See Shell Development Co. Taylor, J. K., soil-colour classes, B., 34. Taylor, J. L. See Garner, Frederick H.

Taylor, J. R., jun., and Pierre, W. H., non-acid-forming mixed fertilisers. II. Value of dolomitic limestone supplements of different degrees of fineness as measured by increase in water-soluble magnesium in soil, B., 422.

Taylor, L. S., saturation ionisation current from high-speed electrons in air, A.,

130.

and Mohler, F. L., ionisation of liquids by X-rays, A., 1321.

and Singer, G., guarded-field X-ray ionisation chamber, A., 582.

Taylor, L. V. See Du Pont de Nemours & Co., E. I.

Taylor, M. K. Sec Ferranti, Ltd.

Taylor, M. W., and Russell, IV. C., diffusible calcium in scrum of laying and nonlaying hens, A., 358.

Sec also Russell, W. C. Taylor, N. O., and Spyco Smelting & Refining Co., precious-metal alloy composition, (P.), B., 416.

Taylor, N. W., applications of potash in

the ceramic industry, B., 885.

See also Pole, G. R.

Taylor, R., high-pressure synthesis of aliphatic compounds, B., 440. See also Morgan, (Sir) G. T.

Taylor, R. B., and Hawaiian Canneries Co., canning of pineapples and similar products, (P.), B., 762.

Taylor, R. F., available nitrogen as a factor influencing the occurrence of Sitka spruce and Western hemlock seedlings in forests of S.-E. Alaska, B., 563.

Taylor, R. S., and Smull, J. G., drying oils, XIX. Oxidation of linseed oil, B., 334.

Taylor, S. Sec Gen. Eng. Co. (Radcliffe), Ltd.

Taylor, S.D. See Internat. Latex Processes.

Taylor, S. G. Sec Thompson, W. O. Taylor, T. C., and Keresztesy, J. C., granule disintegration of corn starch,

Taylor, T. I., and Klug, H. P., thermal transitions of copper sulphate pentahydrate: molecular rotation and the dehydration of hydrates, A., 1339.

Larson, L., and Johnson, W., miscibility of alcohol and oils, B., 701.

'Taylor, T. W.J., and Hobson, (Miss) P. M., ring-closures of derivatives of 2-amino-

styrenc, A., 482. Taylor, W., olefine formation, A., 587, 702. Taylor, W. C., and Corning Glass Works, borosilicate glass composition, (P.), B., 595. Fining of glass and batch therefor, (P.), B., 643. Stirring of molten glass in continuous tank furnaces, (P.), B., 989. Taylor, W. H., X-ray examination of substituted edingtonites, A., 185. X-Ray measurements on diflavylene, rubrene, and related compounds, A., 1450.

Taylor, W. I. See Brit. Celanese.

Taylor & Sons, Ltd., and Taylor, G. A., pickling, swilling, washing, or other liquid treatment of metal rods, tubes, bars, etc., (P.), B., 1046.
Taylor-Wharton Iron & Steel Co. See

Hall, J. H.

Tazaki, H., $K\beta$ spectra of chlorine and sulphur, A., 1311.

Tchakirian, A., Lesbre, M., and Levinsohn, M., preparation of tin alkyl and aryl trihalides, A., 460.

and Levinsohn, M., preparation of germanium alkyl or phenyl trihalides, RGeX₃, and of germanium methylene hexachloride, A., 61.

Tchang, H. L. See under Chang, H. L. Tcherviakov, M. See Glusmann, M. Tchoubar, (Mlle.) B. See Tiffeneau, M. Tchukitschev, I. P. See Tschukitscheva-Fedorova, M. N.

Te Aroha Dairy Co., Ltd. See Murray, II. L. Teakle, L. J. II., chemical composition of saltbushes from the Salmon Gums area, A., 123.

Teal, G. K., and Mae Wood, G. E., Raman spectra of the isotopic molecules H2,

HD, and D₂, A., 136.

Tears, C. F., and Petroleum Processes Corp., high-m.p. wax, (P.), B., 534. Decolorising and dewaxing petroleum lubricating oils, (P.), B., 584. Dewaxing lubricating oil distillates and residues, (P.), B., 584.

Teatini, D., influence of solubility of lime and origin of calcium salts in [beetsugar] juice, B., 468. Recent scientific and technical progress in the sugar industry, B., 1224.

Teats, R., and Amer. Smelting & Refining Co., cadmium, (P.), B., 999. Treatment of sulphate solutions of thallium and cadmium, (P.), B., 999.

Tebaldi, A., rotary machines for creating a partial vacuum or for compressing gases, (P.), B., 480.

Tebinov, S. A., synthesis of furfuralazine, A., 996.

Tebow, $E.\ D.$ See Harris, $Lloyd\ E.$

Technicolor Motion Picture Corporation. See Troland, L. T.

Technicraft Engineering Corporation. See Wells, W. T.

Techno-Chemical Laboratories, Ltd. See Gram, T.

Technothermie Société Anonyme, R. L., tunnel kilns, (P.), B., 835.

Teckemeyer, F. W. See Teckemeyer, J. F.

Teckemeyer, G. A. See Teckemeyer,

Teckemeyer, J. F., Teckemeyer, F. W., Teckemeyer, G. A., Lewis, L. L., Bosau, C., Marquis, C., and Ward, N. R., gas converter and cleaner of the liquidcontact type, (P.), B., 868.

Tedeschi, G., catalytic action of copper

oxido in combustion of hydrogen. I. and II., A., 570, 1212.

See also Contini, B. F.

Teed, P. L., plastic deformation and agehardening of duralumin, B., 279.

Tefft, R. F., and United States Rubber Co., creaming of rubber latex, (P.), B.,

See also McGavack, J.

Teichmann, C. F., Klein, Hugo, and Rathemacher, C. P., chlorination of [paraffin] hydrocarbons, (P.), B., 919. See also Texas Co.

Teichmann, H., [mechanical] relay for spark counters of Greinacher type, A.,

Teik, G. L. See Georgi, C. D. V.

Teilum, G., primary hypercholesterolæmia in rabbits after administration of the luteinising hormone (prolan-B), A., 1157.

Teis, R. V., and Jofinova-Goldfein, E. M., determination of small concentrations. XII. Colorimetric determination of acetate, A., 1005.

See also Pamfilov, A. V.

Telefunken Ges. für Drahtlose Telegraphie m.b.H., [scaling-in of electrodes of] electron-discharge devices, (P.), B., 508, 607. Fluorescent or luminescent screens suitable for use in cathode-ray tubes, or for use as Röntgen-ray transmitting or intensifying screens, (P.), B., 845. Cathode-ray tubes, (P.), B., 1052. Electron-discharge devices, (P.), B., 1164.

See also Burg, V. E., Miehelssen, F., and Osnos, M.

Telegraph Condenser Co., Ltd., and Stephan, F. C., dielectric materials, (P.), B., 284.

See also Gwinn, $C.\ D.$, and Stephan, $F.\ C.$ Teletov, I. S., and Simonova, V. N., wet method of preparation of sodium

carbonate from bicarbonate, B., 406. and Tjutjunkina, A. V. T., catalytic action of colloidal ferric hydroxide at different degrees of dispersion, A., 807.

Tellegen, F. See Böeseken, J. Teller, E. See Gamow, G., and Heitler,

W. Teller, G. L., two types of plant-diastase,

A., 1023.

Téllez Plasencia, H., new spectrographic measurements for the quality and homogeneity of X-rays. I. Technique, A., 926.

See also Palacios, J.

Tellmann, W., application of lumophoro glasses to [electric-]light bulbs, B., 555. Temkin, M., relation between apparent and true activation energy of hetero-

geneous reactions, A., 166.

and Michailova, E., kinetics of reaction between carbon dioxide and hydrogen on platinum from the viewpoint of adsorption theory of catalysis, A., 168.

and Pishov, V., heterogeneous oxidation of nitric oxide at the temperature of liquid air, A., 163.

Temme, T., rubber-bitumen mixtures, B., 1095.

Templeman, W. C. See Blackman, G. E. Templeman, W. G. See Richards, F. J. Tenchio, F., does vitamin-C affect normal

pigmentation? A., 390.

Tendeloo, H. J. C., potentiometric determination of calcium concentrations in solutions, A., 443. Mineral electrodes. III. Adsorption of calcium by gum arabic, A., 566. [Ultrafiltration], A., 815.

See also Bär, A. L. S. Tendick, F. H. See Dox, A. W.

Tenenbaum, A. See Usanovitsch, M. Teng-Han, T., and Cheh-Liang, K., yeast cakes from Shantung Province, B., 565. Tennant, R., arrest of contraction in an

ischemic myocardial area, A., 514.

Tennenbaum, M. See Quastel, J. H.

Teodoreanu, I., preparation and b.p. of phosphorus trichloride, A., 690. Teodori, U. See Patrassi, G.

Teodoro, G., and Zampetti, R., influence of ovarian hormone on plant development,

A., 394.

Teorell, T., method of studying conditions within diffusion layers, A., 676. Electrical changes in interfacial films, A., 933. Ionic transference numbers in cellophane membranes, A., 1206.

Teppema, J., and Wingfoot Corp., pickling

inhibitor, (P.), B., 842. Ter-Akopova, M. See Ruibak, B.

Ter-Mikaeljantz, E.I. See Lozinski, N.M.Ter-Nedden, W., hydrocyanic content of coke-oven gas, B., 482. See also Demann, II'.

Terada, T., voltage-current curves obtained with an electrolytic cell and electric oscillations, A., 1207.

Tcrai, K., and Ichitsubo, H., influence of oxidation-reduction system on adrenal-

ine action. III., A., 116. Terakopoff, R. G., fuels for use in internalcombustion engines and for other purposes, (P.), B., 778, 869.

Terazaki, K. See Ogawa, S.

Terenin, A., photodissociation of complex molecules, A., 1214.

and Neumin, H., photo-dissociation of polyatomic molecules in the Schumann ultra-violet, A., 8.

Terentiev, A. P., Vinogradova, E. V., and Galpern, G. D., diazometric method for determination of diene hydrocarbons, A., 744.

Terlet, H., and Briau, A., determination of phosphoric acid by precipitation as ammonium phosphomolybdate, A., 177. Determination of iron and aluminium oxides in natural calcium phosphates, B., 191. Analysis of superphosphates by precipitation of ammonium phosphomolybdate, B., 738.

Terlikowski, F., and Sozánski, S., determination of calcium, magnesium, potassium, and sodium in plants by extraction with

hydrochloric acid, A., 1035.
Terpstra, P., and Weerden, W. J. van, symmetry of the benzene molecule, A., 551.

See also Backer, H.J., Beintema, J., and Klasens, H. A.

Terpugov, $L.\ I.$ See Sabinina, $L.\ E.$ Terrat, S., colorimetric detection of small amounts of titanium and vanadium in rustless steels, B., 548.

Terre, W. L. See Guthmann, W. S. Terrell, J. T. See Forestal Land, Timber &

Railways Co.

Terrey, A. G., preparation of non-skid road surfaces, (P.), B., 500.

Terrey, H. See Aiken, J. K., Haley, J. B., and Hedger, R. E.

Terrien, J., rotational structure of the D and E band systems of CuCl, A., 134. Properties of [photographic] plates treated with solutions of sodium salicylate, between 2500 and 1600 A., B.,

Terroine, E. F., distribution of the urinary constituents of nitrogen metabolism and its physiological significance. VIII. Fundamental principles for the study of nitrogen catabolism, A., 1017. and Lauresco, C., liberation of ammonia during enzymic proteolysis, A., 759.

and Razafimahery, R., sulphur metabol-

ism in inanition, A., 631.

Terroine, E. F., and Trimbach, H., comparison of tendencies of different species to ketonuria ammoniuria, A., 371.

Terry, J. B., and Field, Edward, smoke tendency of refined kerosene and its determination, B., 866. Terszakowec, J. See Ostern, P.

Tertsch, H., abrasion hardness of dolomite, A., 416,

Terzaghi, K. von, state of tension in pore water of drying concrete, B., 934.

Terziev, G. N., and Solvay Process Co., purification of brines, (P.), B., 833.

Tesarz, J. See Gatty-Kostyal, M. Tesauro, G., existence of dehydrogenases of fatty acids in the human placenta, A., 242

Teschner, F. See Müller, Eugen.

Tesima, S., influence of dicyanodiamide, guanidine, and guanylurea on bacteria [in soils], B., 245. Influence of urea and cyanamido derivatives on plant growth, B., 341. Tessier, G. See Monod, J.

Tessier, T., tests of old propellant powders at Ripault powder factory, B., 765.

Tesson, F. See Vila, A.

Testolin, M., and Chinaglia, A., intravenous administration of egg-lecithin and carbohydrate metabolism, A., 1293.

Testoni, M. See Berlingozzi, S.

Testoni, P., action of sulphurous mineral waters on germination and plant development, A., 394. Comparative action of mineral waters on the autonomous contraction of the ureter, A., 1549. Pharmacology of the mineral water of Valleverde, A., 1549.
Teterin, V., and Zonis, S. A., hydrogen

esters of tetrachlorophthalic acid, A., 1108. Tetley, F. W. See Swift, Levick & Sons. Tetsumoto, S., sterilising action of acids. VI. Sterilising action of halogenated

fatty acids on putrefactive bacteria, B. typhosus, and V. choleræ, A., 641.

Tettamanzi, A. See Garelli, F. Teunissen, H. P., stability of lyophilic

bio-colloids, A., 935.

Teuscher, E. O., alteration of the rocks of the Eibenstock-Neudek [Saxony-Bohemia] granite massif, A., 584.

Teves, M. C. See Holst, Gilles. Texaco Development Corporation, dewaxing a wax-bearing oil to produce a lubricating oil of low pour point, (P.), B., 54. Refining or treating hydrocarbon or mineral oil, (P.), B., 534.

and Gee, W. P., separation of wax from mineral oil by filtration, (P.), B., 1189.

and Govers, F. X., refining of hydrocarbon oils, (P.), B., 1139.

Gross, H. H., and Overbaugh, W. V., dewaxing of hydrocarbon oil, (P.), B., 681.

McCarty, B. Y., and Manley, R. E., solvent refining of mineral oil, (P.),

Texaco Salt Products Co. See Martin, O. V. Texas Co., Armistead, G., jun., and Donaldson, W. T., treatment [conversion] of hydrocarbon oils, (P.), B., 9.

Armistead, G., jun., and Ullrich, W. motor fuel from sludge oil, (P.), B., 534. and Bailey, D. P., conversion of hydrocarbon oils, (P.), B., 682.

and Behimer, O., making of gasoline, (P.), B., 1190.

Texas Co., and Berliner, M., chlorination of ethylene hydrocarbons, (P.), B., 1192.

and Clarke, L. A., solvent refining of hydrocarbon oil, (P.), B., 777, 821.

Clarke, L. A., and Towne, C. C., motor fuel, (P.), B., 821. and Cox, E. R., recovery of stable

gasoline from natural gas, (P.), B., 263.

Dearborn, R. J., and Stratford, W. M., treatment of hydrocarbon oils, (P.), B., 1191.

and De Florez, L., conversion of hydrocarbon oils, (P.), B., 262, 682. Treatment of hydrocarbon oils, (P.), B., 262, 1191.

Dengler, F. S., Gardner, E. W., and Felder, D. H., asphalt, (P.), B.,

Detwiler, J. G., Heisig, T. C., Rosnell, J. E., and Hall, F. W., textile-fibre

spraying oils, (P.), B., 587.

and Dooley, B. F., jun., preparation of [sodium plumbite] doctor solutions for sweetening of oils], (P.), B., 969.

and Eastman, Du B., olefines, (P.), B., 918.

and Esch, J. F., emulsion machine, (P.), B., 528.

and Gallagher, J. S., cracking of oils, (P.), B., 358.

and Gallsworthy, B., chlorination [of aliphatic hydrocarbons], (P.), B., 1192. and Gross, H. H., revivifying adsorbent materials [from hydrocarbon oil treat-

ment], (P.), B., 358. and Hall, F. W., apparatus for fractionating hydrocarbon oil vapour, (P.), B.,

262.

Hall, F. W., and Smith, Harris A., cracking of hydrocarbon oils, (P.), B., 262.

Hendrey, W. B., and Ebaugh, I. A., dehydrating [petroleum] oil [emulsions], (P.), B., 681.

and Kaufman, G., grease, (P.), B., 285. and Kershaw, W. H., tar composition, (P.), B., 180.

and Levin, H., preparation of fluorescent and pour-point-reducing bodies from petroleum residue, (P.), B., 821.

and Logan, W. B., neutralisation of organic acidity in petroleum lubricat-

ing oils, (P.), B., 358.
and Ludeman, C. G., [antioxidants for]
motor fuel, (P.), B., 261.
McCarty, B. Y., and Skelton, W. E.,

removal of wax from hydrocarbon oils, (P.), B., 260, 438, 820. and McMillan, W. A., distilling and

fractionating apparatus, (P.), B.,

and Manley, R. E., solvent refining of hydrocarbon oil, (P.), B., 533.

Manley, R. E., and Gee, W. P., filteraid dewaxing of hydrocarbon oils, (P.), B., 916.

and Pevere, E. F., motor fuels, (P.), B., 87, 778. Solvent refining of hydrocarbon oil, (P.), B., 438. Dewaxing of hydrocarbon oil, (P.), B., [Polyamino]phenylmethanes, (P.), B., 921. Sweetening of petroleum hydrocarbons, (P.), B., 969.

and Powell, R. C., coating for [oilrefining] vessels, (P.), B., 680.
Rees, H. V., and Ketcheson, H., soldering

flux, (P.), B., 999.

Texas Co., and Remy, T. P., insecticide and fungicide, (P.), B., 387. and Shefstead, G. O., treatment of hydrocarbons, (P.), B., 682. and Stapleton, V., treatment of hydrocarbon oil, (P.), B., 1191. and Story, Le R. G., motor fuel, (P.), B., 630. Stabilising oils, (P.), B., 821. and Stratford, W. M., treatment of hydrocarbon oils, (P.), B., 262. Treating [cracking] of hydrocarbon oils, (P.), B., 777. Treating and purifying motor fuels, (P.), B., 822. purifying motor fuels, (P.), B., 822. Preparation of emulsions, (P.), B.,

970. and Taveau, R. de M., motor fuels, (P.),

B., 87.

and Teiehmann, C. F., treatment of hydrocarbon oils, (P.), B., 535. Sweetening of hydrocarbon oil, (P.), B., 778. Solvent extraction of hydrocarbon oil, (P.), B., 918. Insecticide and fungicide, (P.), B., 1118.

and Thurston, R. R., bituminous saturant [for waterproofing fabric], (P.), B.,

53.

and Towne, C. C., treatment of hydrocarbon oils, (P.), B., 358. Pyrolysis of gaseous hydrocarbons, (P.), B., 916. and Trow, R. F., conversion of hydro-

carbon oils, (P.), B., 534, 682. Vietti, W. V., and Garrison, A. D.,

treating oil wells, (P.), B., 820.

Watson, C. W., and Stapleton, V., treatment of hydrocarbon oils, (P.), B., 358.

and Weir, J. W., dewaxing of oils, (P.), B., 263.

and White, G. D., conversion of hydrocarbon oils, (P.), B., 1190.

Texas Gulf Sulphur Co. See Hamor, W. A., and Lenander, N. E.

Texas Pacific Coal & Oil Co. See Levine, I. M.

Textile Machine Works. See Moyer, W. H. Textile Patent & Process Co., Inc. Sec

Cotchett, L. M.
Textor, C. K., and Northwest Paper Co., [paper] pulp, (P.), B., 231. Pulp, (P.), B., 1202.

Težak, B., precipitation processes. I. Connexion between ratio of concentrations of reactants and precipitation of silver thiocyanate and evanide, A., 282. Relation between absorption and scattering of light in white sols, A., 286. Structure of precipitates. I. Influence of hydrogen, lithium, sodium, and potassium ions on peptisability of secondary particles of barium sulphate precipitates. II. Effect of Mg, Zn, Ni, Cu, Mn, and Cd ions on peptisability of secondary particles of barium sulphate precipitates. III. Occlusion phenomena with barium sulphate precipitates, A., 427, 679.

Thacker, R. B., jun., and Sinclair Refining Co., sweetening of hydrocarbon oil, (P.), B., 261.

Thackwell, F. E. See Head, R. E.

Thackwell, H. L., and Dorr Co., sludge-digesting tank, (P.), B., 1022.

Thaddea, S., adrenal cortex and carbo-

hydrate metabolism, A., 385. and Fasshauer, W., adrenal cortex and cholesterol metabolism, A., 1424.

and Waly, A., effect of the thyrotropic hormone of the pituitary on bloodfunction, A., 251. . See also Bielschowsky, P.

Thaler, H. See Bleyer, B., De Mingo, M., and Täufel, K.

Thalmayer, K. Sce Stern, A. Thamann, F. Sce Kehoe, R. A.

Thanheiser, G., analytical processes in the ironworks laboratory, B., 548.

and Brauns, E., vacuum furnace and its use for determining oxygen in steel, B., 598.

Thannhauser, S. J., and Reichel, M., animal lipins. X. Cerebrosidase; its relation to splitting of polydiaminophosphatide by polydiaminophosphatase, A., 521.

Thatcher, L., hypervitaminosis-D, A., 391. Thatte, V. N., Raman spectrum of thiophosphoryl chloride, A., 1318.

and Askhedkar, D. Y., Raman spectra of molten organic acids and their derivatives, A., 923.

See also Joglekar, M. S.

Thau, A., desulphurisation of gas; purification of coal gas and benzene, B., 531. Low-temperature carbonisation plants for gasworks, B., 965. Blümner's method of coal treatment, B., 1137.

Thayer, C. H., and Sun Oil Co., insulating unit, (P.), B., 131. Firing of oil stills,

(P.), B., 1190.

Thayer, S. A. See MacCorquodale, D. W. Thedieck, F. J. G. See Du Pont de

Nemours & Co., E. I.
Thein, F. W. N. See Cathode Corp., Ltd. Theis, E. R., and Serfass, E. J., chrome -tanning] liquors. V. Effect of various factors in manufacture of sucrose-reduced liquors on chromic oxide and oil taken up by pickled hide powder, B., 162. Photomicrographical studies of fat-liquoring of leather, B., 561. Theis, R. M., and Bull, H. B., molecular

dimensions from viscosity studies, A., 279.

Thelen, H. See Nonnenbruch, W. Them, H. See Carbic, Ltd.

Theobald, E., and Theobald, P., aromatic compounds containing seleninitrogen, and sulphur, (P.), B., 876. selenium,

Theobald, G. W., neuritis in pregnancy successfully treated with vitamin- B_1 ,

A., 752.

Theobald, P. See Theobald, E.

Théodoresco, (Mlle.) M., Raman effect of two complex borotartrates in solution, A., 922. Raman effect of a complex tungstotartrate in water, A., 1445.

Theorell, H., cytochrome-c. II. Preparation and properties, A., 879. Keilin's cytochrome-c and the respiratory mechanism of Warburg and Christian, A., 1554.

See also Eisler, B.

Theriault, E.J., biozeolitic theory of sewage

purification, B., 301. and McNamee, P. D., adsorption by activated sludge [from sewage], B., 301.

Thermal Engineering Corporation. See Smith, H. L., jun.

Thermal Industrial & Chemical (T.LC.) Research Co., Ltd., Chadder, W. J., and Spiers, H. M., crystals, (P.), B., 673.

Thermal Syndicate, Ltd., and Maddock, A. J., light-filtering media, (P.), B.,

Thermatomic Carbon Co. See Spear, E. B. Theron, J. J., and Niekerk, P. le R. van, nature and origin of black turf soils, B., 33.

Thévenot, L. Sec Arloing, F.

Thewlis, J., X-ray examination of tooth structure, A., 878.

Thews, E. R., remelting and refining of scrap; nickel, B., 23. Effect of foreign constituents on technological properties of solder, B., 550. Production and application of silver solders, B., 1043.

Thexton, R. H. See Lochhead, A. G. Thibaudet, M. A. See Lumière, A.

Thiel, A., voltaic pile readily made from electrolytes, A., 1467.

and Gemsa, H., effect of pressure on p_H of blood: use of glass electrodes, A., 94.

and Logemann, H., simplification of optical bathmometry by application of "spectral mixed-colour colori-metry" and other improvements, A., 176. Velocity of formation of compounds of higher order, with special reference to streaming process for investigating very rapid reactions, A., 433. Absolute colorimetry. XIII. Azobilirubin as an indicator, A., 577.

and Peter, O., absolute colorimetry. XII. Absolute colorimetric determin-

ation of iron, A., 44.

Thiel, R. See Lieser, T.
Thiel, W. See Straus, F.
Thielacker, W., and Chou, L. H., transformations between stereoisomeric aldoximes, A., 1109.

Thiele, H., formation of carbon dendrites, A., 1472. Mirrors and foils of graphite, B., 434.

Thiele, W., primary photo-electric current in NaCl crystals, A., 548.

and Trautmann, G., action of selenium on acid anhydrides, A., 203. See also Windaus, A.

Thielke, R. C. See Willard, H. H.

Thiem, H., epidemology and control of the cherry fruit fly (Rhagoletis cerasi, L.), B., 423.

Thier, W. See Seidel, F.

Thiernecke, H., plastic flow in a nearly dry clay body, B., 454.
Thies, H. R., and Wingfoot Sorp., vulcanis-

ation of rubber, (P.), B., 1057.

Thiess, L. E., influence of glaze composition on mechanical strength of electrical porcelain, B., 454.

Thiesse, X., action of oxidising agents on sodium hypoferrite, A., 174.

Verain, M., and Ziegler, A., $p_{\rm H}$ determination in biological liquids with the Thompson electrode, A., 535.

Thiessen, A., colloidal nature of soaps, B., 1105.

Thiessen, E.J., effect of storage on vitamin-C content of Wyoming potatoes, B., 568. Thiessen, G., temperature during coal formation, B., 1073.

Ball, C. G., and Grotts, P. E., coal ash and coal mineral matter, B., 675.

Thiessen, P. A., and Bartel, H., gas reactions in silent discharge at atmospheric pressure. I. New type of screened point discharge with transition of strong current form of discharge to a

weaker, A., 1311. and Klenck, J. von [with Gockowiack, H., and Stauff, J.], temperatures and heat effects of genotypic transformation of alkali salts of long-chain fatty acids, A., 14.

and Köppen, R., conditions for preparation of oxide hydrates from ethylates and for detection of hydrates from the p-x curves, A., 1079.

Thiessen, P.A., and Stauff, J., fine structure and transformations of alkali salts of long-chain fatty acids, A., 1186. Fine structure and transformations of alkali salts of long-chain fatty acids, A., 1450.

Stauff, J., and Wittstadt, W., single or double molecules in crystallised soaps?

B., 1003.

Thiessen, R., and Sprunk, G. C., microscopic and petrographic studies of certain American coals, B., 224. Origin of the finely-divided or granular opaque matter in splint coals, B., 1185.

Thieulin, G., milk hygiene in France, B.,

Thiex, J. J., quartz mill, (P.), B., 960.

Thilo, E., silicates. III. Behaviour of tale on heating with MgO and Mg, Co, and Mn chlorides, A., 39.

Thimann, K. V., analysis of activity of two growth-promoting substances in plant tissues, A., 122. Physiology and chemistry of the plant hormones, A., 908. Formation of nodules in legume roots, A., 1434. Thimm, C. Sco Geldbach, W., Fabrik für

Bergwerksbedarf.

Thiodet, and Ribere, elimination by sweat in an ozonised atmosphere, A., 1538.

See also Aubry, P.

Thiophene Products Co. See Hessle, E. T. Thivolle, L., micro-determination of phosphoric acid in tissue, A., 126. How can water intervene in calculation of enzymic reactions? A., 518. Rôle of water in activation of renal phosphatase, A., 521.

Thornblom, D. See Runnström, J. Thole, H. See Bernhauer, K. Tholl, J. F., and Amer. Tool & Machine Co., centrifugal separator, (P.), B., 722. Steady bearing for centrifugal separators, (P.), B., 1184.

Thoma, A. See Awender, H.

Thoma, E. See Böttger, W.

Thomann, J., disinfection and neutralisation of means of transport, B., 861. and Kälin, A., preparation of distilled water in a vacuum, A., 688.

Thomas. Sec Mehl, W.

Thomas, A. See Loeper, M.

Thomas, A. B., palladium and palladium leaf, B., 794.

Thomas, A. G., quick-reading viscosimeter, (P.), B., 963.

Thomas, A. M. See Brit. Electrical & Allied Industries Research Assoc.

Thomas, A. V., wood preservation in

Malaya, B., 934.

Thomas, A. W., and Kremer, C. B., reaction of organic anions with basic thorium chloride hydrosols; reversal of charge with salts of the hydroxyacids and with nitric acid, A., 287.

and Owens, H. S., formation of zirconate hydrosols and their disintegration by certain neutral salts, A., 27.

See also Pennington, M. E.

Thomas, B., and Hope, R., effect of intensive treatment on yield and quality of grass from an exposed Boulder clay pasture, B., 756.

Thomas, B. H., and Cannon, C. Y., influence of diet on antirachitic potency

of cow's milk, A., 97.

Culbertson, C. C., and Beard, F., effect of ingesting soya beans and oils differing widely in their iodine values on firmness of beef fat, B., 1126.

Thomas, B. H., and Steenbock, H., cereals and rickets. VI. Comparative ricketsproducing properties of different cereals, A., 391.

See also Kirk, W. G. Thomas, C. A., Grosscup, C. G., and Sharples Solvents Corp., corrosion in-

hibitor, (P.), B., 602.

Hochwalt, C. A., and Mead Res. Eng. Co., [iron-tannin] pigments, (P.), B., 559.

and Monsanto Petroleum Chemicals, prepared resin, (P.), B., 1218.

and Sharples Solvents Corp., wetting, emulsifying, and washing agent, (P.), B., 90. Alkyl-substituted aryl hydrocarbons, (P.), B., 443. See also Hochwalt, C. A.

Thomas, C. L. See Hurd, C. D., and

Tropsch, H.

Thomas, D. E. F. Sec Piper, J. D.Thomas, E. B. [with Wood, L.J.], reactions between dry inorganic salts. III., A.,

Thomas, Edward B. See Brit. Celanese. Thomas, F. J. D., centrol of apple surfacecating tortricid larvæ, B., 37.

See also Greenslade, R. M., and Steer, W. Thomas, H. See Sonderhoff, R.

Thomas, H. A., comparison of the dyeing properties of Australian grown properties of Australian grown cotton and native American cotton; elimination of a difference by a compensating treatment, B., 1035.

See also Imperial Chem. Industries. Thomas, H.C. Sec Harned, H.S.Thomas, I. See Petherbridge, F.R.

Thomas, I. H., and Davies, R. M., specific resistance and temperature variation of resistance of nickel and some of its alloys in the annealed and unannealed states, B., 1158.

Thomas, J. See Bigwood, E. J. Thomas, J. E., and Crider, J. O., effect of fat on the $p_{\rm H}$ of the contents of the duodenum, A., 1413.

Thomas, J. G., treatment of liquids, (P.), B., 78. Treatment of slimy materials, (P.), B., 622.

Thomas, J. L., electrical-resistance alloys of copper, manganese, and aluminium, B., 414.

Thomas, L. A., calcium deficiency in apple trees at Stanthorpe (Q.), B., 1115.

Thomas, L. B. See Glockler, G.Thomas, M. See Pearce, J. N.

Thomas, Max, behaviour of glasses under treatment by the blow-lamp flame, B., 1152.

See also Gen. Electric Co.

Thomas, O., and Kemp, A. V., carbonising chambers, retorts, etc., especially for use in the low-temperature distillation of carbonaceous material, (P.), B., 678.

Thomas, P., and Kalman, (Mile.) C. catalytic oxidation by copper salts in presence of manganese salts, A., 806.

Thomas, P. E. See Fosse, R.Thomas, R., paper-making, (P.), B., 588.

Thomas, R. E. See Du Pont de Nemours & Co., E. I.

Thomas, R. P. See Fisher, R. A. Thomas, R. V. See King, J. G.

Thomas, R. W., and Phillips Petroleum Co., apparatus for production of gaseous mixtures, (P.), B., 777.

Thomas, S. B., and Ralph, D. E., grading milk at the factory; value of the methylene-blue and the fermentation tests, B., 471.

Thomas, S. Benson. See Parks, G. S.

Thomas, T. R. See Hughes, J. O. Thomas, W., distribution and condition of

phosphorus in three horizons of a differentially fertilised Hagerstown clay loam soil planted to apple trees in metal cylinders, B., 291.

Thomas, W. B. See Brinker, H. S.

Thomas, W. J., and Anaconda Copper Mining Co., metallurgical furnace, (P.), B., 698.

Thomas & Co., Ltd., R., Kieft, A. W., Mehl. E., and Smetana, O., bright coatings of tin or tin alloys on iron and steel, (P.), B., 1047.

Thomasset, P. See Karpeles, S. L. Thomis, G. N., titration of alkaloids in

anhydrous media, A., 1282.

Thomlinson, F. See Birmingham Electric Furnaces.

Thompsett, S. L., and Anderson, D. F. copper content of blood in pregnancy, A., 884.

Thompson, $A. \underline{E}$. Seo Standard Oil Co.

Thompson, A. F. Sce Wieland, H. Thompson, A.J.See Soller, W.

Thompson, A. W. See Dussek Bro Thompson, B. G. See Mote, D. C. See Dussek Bros. & Co.

Thompson, C. D. See Ford J. H.

Thompson, C. L., Bacon, T. S., Bludworth, J. E., and Hanlon-Buchanan, Inc.,

treatment of hydrocarbons, (P.), B., 632. Thompson, C. P., effect of a low-protein ration on the pre-natal and post-natal development of the rat, A., 1409.

Thompson, C. S., and Thompson Paint

Manufg. Co., fire-extinguishing paint or

coating composition, (P.), B., 462.

Thompson, D. D., and Norris, J. F.,
Raman spectra. I. Benzoyl chloride and its substitution products, A., 1445. and Sherrill, M. L., Raman spectra of β -methyl- Δ^a - and $-\Delta^{\beta}$ -butene, A., 819.

Thompson, F. C. See Gordon, J.Thompson, H. H., and Davies, A. E., magnetic separators, (P.), B., 27, 418,

Thompson, H. L., and Nashua River Paper Co., separating-sheet material, (P.), B., 736.

Thompson, II. M. See Hilditch, T. P. Thompson, H. T. See Kinney, C. R.

Thompson, $Harold\ W.$, and Frewing, $J.\ J.$, homogeneous catalysis: decomposition of acraldehyde catalysed by iodine, A., 167.

and Linnett, J. W., spectrum, fluorescence, and photochemical decomposition of acraldehyde, A., 8. Vapour pressures of alkyl sulphides, A., 149. Vapour pressures and association of metallic and non-metallic alkyls, A., 557. Absorption spectra of polyatomic molecules containing methyl and ethyl radicals. III., A., 1443.

and Meissner, M., thermal decomposition of ethylene oxide, A., 820. Kinetics of thermal decomposition of alkylene oxides. I. Ethylene oxide, A., 1208.

and Purkis, C. \check{H} ., photochemistry of nitrites, nitrates, and nitro-compounds, A., 544.

See also Purkis, C. H.

Thompson, Harry W. See Standard Oil Co. of California.

Thompson, J. C., jun., and New Jersey Zinc Co., purifying zinc sulphate solutions, (P.), B., 145.

Thompson, J. G., large single crystals of copper, B., 325.

and Cleaves, H. E., preparation and properties of pure iron, A., 576.

Thompson, J. K., and Hargrave, J., relative merits of steamed and raw potatoes in feeding of fattening pigs, B., 347.

Thompson, J. K. (Sheffield), and Wheeler, R. V., "pinking" [of motor fuels], B., 133.

Thompson, J. S. See Tanner, R. R. Thompson, J. W. See Voegtlin, C.

Thompson, J. W. (London). Sec Angus,

W. R., and Bailey, C. R. Thompson, L., propagation of explosion condensation through air, A., 1343.

Thompson, M. De K., electrolytic protection from corrosion of east iron of various compositions, B., 502.

Thompson, M.R. See Kharaseh, M.S. Thompson, M.S. See Du Pont de Nemours & Co., E. I.

Thompson, N., electrical resistance of bismuth alloys, A., 1056.

Thompson, P. F., lubrication and corrosion, B., 52.

Thompson, P. K. Sco Thompson, W. O.

Thompson, R. See Meyer, Karl. Thompson, R. C., and Thompson Eng. Co.,

electrostatic precipitator, (P.), B., 66. Thompson, R. M., and Thompson Continu-

ously Operating Filter Press Co., combined press and filter device, (P.), B., 81.

Thompson, T. G. See Igelsrud, I.
Thompson, W. G. See Gen. Electric Co.
Thompson, W. H. See McQuarrie, I.

Thompson, W. I. See Lewis, W. K. Thompson, W. O., Taylor, S. G., Thompson, P. K., Nadler, S. B., and Dickie, L. F. N., calorigenic action of extracts of the anterior lobe of the pituitary in man, A., 900.

Thompson, W. R., level control in funnels, A., 446.

and Friedman, I., characteristics of animal amylases in relation to enzyme source, A., 1023.

See also Kirk, E., and Page, I. H.

Thompson, W. S., and Peterson, W. H., chemical composition of canned peas of two varieties of different sizes and grades,

Thompson Continuously Operating Filter Press Co. See Thompson, $R.\ M.$

Thompson Engineering Co. See Thompson, R. C.

Thompson Paint Manufacturing Co. See Thompson, C. S.

Thomsen, A., oxalic acid content of blood, A., 223.

Thomsen, A. M., distillation of mineral oils, tars, and still residues, (P.), B.,

and Thomsen Chem. Corp., utilisation of battery-plate [antimonial-lead] scrap, (P.), B., 940.

Thomsen, E. G. See Kemp, C. R.

Thomsen, O., and Pedersen-Bjergaard, K., detection of small quantities of gonadotropic hormone in the urine of normal

subjects, A., 229.

Thomsen, T. C., electrolytic water treatment for prevention of corrosion and

boiler scale, especially in hot-water systems, B., 747.
and Holbæk Tagpap og Cementvarefabrikker A./S., straw-asphalt sheet, (P.), B., 934.

Thomsen Chemical Corporation. Thomsen, A. M.

Thomson, A. P., and Carborundum Co., disintegration of [scrap] ceramic-bonded articles, (P.), B., 990.

Thomson, J. K. See Coffey, S.

Thomson, R. F., recent developments in dyes, B., 184. Anthraquinone dyes, B., 876. Vat dyes containing only carbon, hydrogen, and oxygen, B., 876. Thomson, R. H. K., Fiehe test for adulter-

ation of honey, B., 1016. Composition of New Zealand honey, B., 1066. See also Askew, H. O.

Thomson, R. M. See Behnke, A. R., and Shaw, L. A.

Thomson, R. S. See Heim, J. W.

Thomson, R. T., properties of sodium hexametaphosphate, A., 809.

Thomson, T. A., microchemical methods, A., 949.

Thomson, W. A. R. See Parkinson, J. Thomson, W. R., extraction of liquid from material such as sludge or slurry, (P.), B., 48.

Thon, N., nature of the residual current [observed with the moving cathode], À., 293.

Thorbjarnarson, T. See Drummond, J. C. Thoreau, J., crystalline chalky rocks of Kivu, A., 1227.

Thorley, A. E., [outlet nozzle for] dyeing, washing, and similar apparatus, (P.), B., 406.

Thorn, F. C., gaskets, B., 303.

Thorn, S. D., Hennion, G. F., and Nieuwland, J. A., preparation of dialkylacetylenes from acetylenic Grignard reagents and alkyl sulphates, A., 819.

Thornberry, H. H., effect of tannic acid on infectivity of tobacco-mosaic virus, A., 258.

Thorndyke, J. T., mineral wool from wollastonite, B., 493.

Thorne, A. M., jun. See Ewing, M.
Thorne, C. B., bleaching and refining of pulp, (P.), B., 96. Apparatus for refining [bleaching] of pulp, etc., (P.), B., 590. Refining of [cellulose] pulp, (P.), B., 881.

Thorne, D. W., and Walker, R. H., respiration of Rhizobium, A., 114. Physiology of Rhizobium. III. Respiration and growth as influenced by reaction of the medium. VI. Accessory factors, A., 114, 1559. Influence of seed inoculation on growth of black locust seedlings, B., 659.

Thorne, R. S. W., and Bishop, L. R., quantitative studies on yeast suspensions by turbidimetric and other methods, B., 167.

Thorne, W. F., vapour-phase gum, B., 307.

Thornton, H. G., action of sodium nitrate on infection of lucerne root-hairs by nodule bacteria, A., 649.

and Nicol, H., stimulation of root-hair growth in legumes by sterile secretions of nodule bacteria, A., 909. Reduction of nodule numbers and growth, produced by addition of sodium nitrate to lucerne in sand culture, B., 515.

Thornton, H. R., Sandin, R. B., and Miller, C. S., substitution of methylene-blue thiocyanate for methylene-blue chloride in reduction test of milk, B., 250.

Thornton, I. T. See Nat. Aniline & Chem. Co.

Thornton, N. C., carbon dioxide storage. IX. Germination of lettuce seeds at high temperatures in light and in darkness, A., 1034. Germination and development of dormancy in cocklebur seeds, B., 612.

Thornton, R. L., and Kinsey, B. B., highvelocity lithium ions, A., 445.

Thorp, A., dry raw rubber, (P.), B., 339.

Thorvaldson, T. See Reevil, N. B.
Thouvenin, J. See Roig, J.
Threadgold, S. D., colour photography; [optical means for eliminating moiré effects in copying screen colour plates], (P.), B., 668.

Three Star Accumulators, Ltd., and Grund, F. C., electrical storage batteries or accumulators, (P.), B., 333.

Threlfall, C. R. F., difficulties in the manufacture of firebricks, B., 643.

Throckmorton, J. W., and Gyro Process Co., conversion of hydrocarbon oils, (P.), B., 262.

Throop, C. G. See Wick, F. G.

Sec also Harrison, G. B.

Thum, A., and Wunderlich, F., frictional oxidation at metal-to-metal joints and its importance in fatigue fracture, B., 238. Thunberg, S. F., band spectra of boron

hydride and dcuteride, A., 920.

Thunberg, T., dehydrogenase systems in seeds of various plants, A., 1150.

Thurau, M. See Zipf, K. Thurber, F. H., starches, (P.), B., 1227.

Thuret, A., specific heats of the mineral oxides: vitreous silica, lime, alumina, as a function of temperature, A., 787.

Thurman, F. M. See Skirball, J. J.
Thurston, E. W., Smadel, J. E., and Loeb,
L., inhibiting action of cattle and sheep serum on kidney extracts of cattle and sheep, A., 1402.

See also Holden, R.

Thurston, J. T., and Shriner, R. L., asymmetric syntheses. IV. Action of optically active nitrates on 2-bromo-fluorene, A., 197.

Thurston, R. R., and Knowles, E. C. oxygen absorption tests on asphalt constituents, B., 306.

Sec also Texas Co. Thwaite, A. H., coke ovens, (P.), B., 729.

Thyssen, H., silicon cast irons, B., 887. Ti, S. P., action of magnesium phenyl bromide on a-bromobutyrdimethylamide, A., 60.

Tibbenham, F., composite wood or similar materials, (P.), B., 500.

Tibell, W. A. E. S. P. H. E. See Holgersson,

Tice, L. F., gelatin as a stabilising colloid for oil-in-water emulsion systems, B., 339.

Tichauer, II., and Frasch, J., nickelling process applicable to all metals and particularly to those which are more electro-negative than nickel, (P.), B.,

Tichodeev, G. M., welding chromiummolybdenum and nickel steels with lowcarbon steel electrodes, B., 411.

Tichomirova, M., preparation of formaldehyde by oxidation of gaseous products of pyrolysis and cracking, B., 631.

Tichomolov, P. A. See Favorski, A. E. Tichonov, A. V., formation of sulphuric acid in presence of nitrogen oxides, B.,

Tichonov, K. See Rogovin, S.

Tichy, G., and Klas, H., production of protective coatings on metal surfaces, (P.), B., 844.

Tiddy, W., and Semet-Solvay Eng. Corp., recovery of phenols from gas liquors, (P.), B., 85. Saturator for production of ammonium salts and manufacture of such salts, (P.), B., 593.

Tideswell, F. V. See Hay, J. L.

Tidwell, H. C., and Holt, L. E., jun., determination of total lipins and lipin partition in faces, A., 363.

Tiedeke, C., tannin complex in coffee. I. and II., B., 713, 905.

Tiemeyer, R. See Leonhardt, J.

Tien, C. C., Wang, H. C., and Lin, T. Y., iron ores of Hunan, A., 1228.

Tien, H. Y. See Tanaka, Kenzo.
Tien, Y. L. See Chuang, C. K.
Tierney, J. S., preparing apples for cold packing, (P.), B., 714.

Tietze, K. See Matthes, K. Tietze, W. See Klatt, R.

Tiffeneau, M., molecular transformations in the cyclane series, A., 1504.

and Broun, D., fixation of propyl bromide in blood and brain of the guinea-pig, after preliminary administration of different poisons of the central nervous system, A., 373.

and Cahnmann, H., deamination of a-amino-β-phenylpropan-β-ol and aamino- β -phenylbutan- β -ol; exclusive preferential migration of phenyl, A.,

68.

Lévy, J., and Ditz, E., formation of a single diastereoisomeride in action of organo-magnesium derivatives on amino-ketones, A., 68. Semipinacolic deamination of β -amino-p-tolyl- and -a-anisyl-a-phenylpropanol; exclusive preferential migration of phenyl, A., 68. Simultaneous formation of two diastereoisomeric alcohols in action of organomagnesium derivatives on active camphenilyl ketones, A., 206.

Neuberg-Rabinovitsch, I. S., and Cahnmann, H., action of magnesium phenyl bromide on d-dibenzoylglyceraldehyde; formation of a single diastereoisomeride: a - d - dibenzoylphenylgly-

eerol, A., 68.

and Tchoubar, (Mlle.) B., differences in behaviour of cis- and trans-cyclohexanediols during dehydration, A., 981.

Tiganik, L., dipole ortho-effect, A., 1051. Tigerschiöld, K. M., and Bonthron, K., sintered hard metal alloys, (P.), B., 1048.

and Sterky, G., tools, etc., from sintered hard metal carbides or similar materials, (P.), B., 603.

Tiggemann, I., permeability of summer fabrics to ultra-violet rays; their bactericidal action, B., 363.

Tijmstra, S. See Bataafsche Petroleum Maats.

Tikhaja, M. See Charikova, A. Tilenschi, S. See Radulescu, D.

Tilford, P. E., relation of temperature to effect of hydrogen- and hydroxyl-ion concentration on Sclerotinia fructicola and Fomes annosus, A., 1569.

Tiller, L. W., cold storage of Cox's orange pippin, 1935, with special reference to internal breakdown, water-core, and bitter-pit, B., 346. Iodine-starch reaction [as an index of maturity in apples], B., 810.

Tilley, C. E., metasomatism associated with the greenstone-hornfelses of Kenidjack and Botallack, Cornwall, A., 185. Enderbite, a new member of the charnockite series, A., 1357. Eulysites and related rock types from Loch Duich, Ross-shire, A., 1358.

Tilley, J. N. See Du Pont de Nemours & Co., E. I.

Tillman, A. B. See Stout, L. E.

Tillman, J. R., selective scattering of slow neutrons, A., 402. Experiments with neutrons having thermal energies, A., 1044.

Sce also Moon, P. B.

Tillmann, Richard, See Shell Development Co.

Tillmann, Rudolf, fineness of grinding of cement, B., 1095.

Tillotson, E. W. See McGregor, R. R. Tilscher, K., acid-proof pottery, (P.), B., 1207.

Tilton, J. A. See Standard-I. G. Co.

Tilton, L. W., thermal control in minimumdeviation refractometry and temperature coefficients for a medium flint glass, A., 1480.

Timken Roller Bearing Co. Sec Williams,

Timken Silent Automatic Co., [liquid] fuelburning methods and apparatus, (P.), B.,

Timm, B., and Mecke, R., Raman effect of organic molecules; vibration spectra of acrylonitrile and ethylene oxide, A., 10. Quantitative absorption measurements of the CH overtones for simple hydrocarbons. I. Halogen derivatives of methane, ethane, and ethylene, A., 268.

Timm, J. A., and Howard, J. B., acetanilidoalkylbarbituric acids [5-alkyl-5-barbiturylacetanilides]. II. p-Carbethoxy-

derivatives, A., 1390. Timm, W. B., investigations in ore dressing and metallurgy, B., 502. Gold milling practice, B., 890.

Timmermans, J., and Hennaut-Roland, (Mme.), International Bureau of Physico-Chemical Standards. VII. Physical constants of twenty organic compounds, A., 20, 149.

Hennaut-Roland, (Mme.), and Rozental, D., variation in volume of heavy water

on freezing, A., 674.
Timmis, G. M. See Smith, Sydney, and Wellcome Foundation, Ltd.

Timmler, H. See Kröhnke, F. Timofeev, L. V. See Volkov, S. T. Timofeev, M. T., physiological character-

istics of frost-resistant winter grains, A., 392.

Timofeev, S., and Verischnipov, N., determining solubility of nitrocelluloses in alcohol-ether mixtures and in alcohol, B.,

Timon-David, J., and Ceresola, G., effect of sex on lipins of some marine molluses. A., 225.

Timus, D. See Nitzeseu, I. I.

Tincker, M. A. H., relation of growthsubstances or hormones to horticultural practice, B., 1060.

and Jacobs, S. E., follicular and other hormones and plant growth, A., 394.

Tindale, G. B., and Trout, S. A., preservation and storage of fruit, B., 42. Ting-Hsi, L. See Wilson, S. D.

Tinker, J. M. See Du Pont de Nemours & Co., E. I.

Tinley, N. L. See Vickers, V. R. S. Tinsley, J. S. See Hercules Powder Co. Tiollais, R., alkaline-earth cacodylates. I.

and II., A., 274, 712. Tipper, (Mrs.) C. F. See under Elam, (Miss) C. F.

Tippetts, E. A. See Newton, R. F. Tippins, B. F., and Activated Alum Corp., composition for water [or sewage] purification, (P.), B., 78.

Tipson, R. S. See Levene, P. A.

Tipton, S. R., phosphocreatine and lactic acid changes in potassium chloride contractions of frog's muscle in acid solution, A., 889.

Tiraspolsky, W., acid treatment and use of chemicals in petroleum boring, B., 818. Tirion, P. H., effect of efficient crystallisation on [sugar-factory] boiler-house

capacity, B., 468. Tischbein, J. R., smelting of pig iron from

titanium magnetites, B., 993. Tischer, J., carotenoids of fresh-water algae. I. Euglenarhodone and other carotenoids of a red Euglena. II. Carotenoids and production of ionone in Trente-pohlia; erythritol content of the algae, A., 912, 1571.

Tischtschenko, I. A., boiling temperatures

of solutions, B., 863. Tischtschenko, V. E., and Sidorkina, A. P., preparation of zirconium dioxide from Chibin eudialites, B., 191.

Tisdale, W. H., new combined spray for citrus trees contains ethyl mercuric oleate in oil, B., 37.

Tisdall, F. F. See Braniou, H. D.

Tiselius, A., sorption and diffusion of ammonia in analcimo, A., 153. Adsorption and diffusion in zeolite crystals, A., 422.

See also Heidelberger, M. Tishler, M. See Kohler, E. P.

Tislowitz, R., effect of ascorbic acid on the vegetative system and on acidalkaline equilibrium, A., 647. Vitamins and water metabolism: effect of ascorbic acid on diuresis, A., 647.

See also Venulet, F.

Tistoni, M. See Salani, R. Tisza, E. T., Joos, B., and Pyridium Corp., [preparation and] purification of alkylated phenyl- | benzene-lazoaminopyridines[germicides], (P.), B., 124.

Titan Co., Inc., sulphates of barium and calcium, (P.), B., 494. Composite pigments containing titanium, (P.), B., 559. Calcined titanium oxide pigments, (P.), B., 559. Titanium pigments, (P.), B., 1217.

Titanges, m.b.H., alkali titanates, (P.), B., 494.

Titani, T., and Okabe, K., heavy water content of salt waters from petroleum springs. I., A., 1482.

See also Harada, Masao, Morita, N., and Okabe, K.

Titanine-Emaillite, Ltd., and Anderson, H., production of leather, (P.), B., 1010.

Titanium Alloy Manufacturing Co., purification of zircon, (P.), B., 834, 1092. [Ferrocarbon-titanium] alloys, (P.), B., 1212.

See also Comstock, G. F., and Kinzie, C.J.

Titanium Pigment Co., Inc. See Cauwenberg, W.J.

Titlestad, N., and Chem. Construction Corp., nitrie acid manufacture, (P.), B., 592.

Titman, H. See Payman, W. Titov, A. T. See Seide, O. A.

Titov, I. A., minimum amount of electrolytes contained in the water of sphagnous bogs, B., 34.

Titov, N. G., coals of the Moscow basin,

B., 4. Titov, P. S., and Nikonov, I. N., stability of lead-alloy anodes in electrolytic production of zinc, B., 201.

Titova, J. G. See Tolkatschev, S. A.

Tittsler, R. P. See Pearce, G. W.

Titus, H. W., and Hammond, J. C.,

analysing data of chick-nutrition experiments, B., 43.

See also DeVaney, G. M., Fritz, J. C., and Nestler, R. B.

Titz, I. N. See Zelinski, N. D.

Tiulneva, A. F. See Fridschtein, I. L. Tiurin, I. V., soil organic matter, B., 34. Tiutina, A. A. See Smirnov, N. I.

Tiutiunnikov, B., chemical treatment of vegetable oils for the paint industry,

Perstney, N., Pleschkova, S., and Tschernitschkina, A., influence of clay in soap solutions, B., 378.

and Tschernitschkina, A., causes of corrosion in autoclaves [for organic syntheses], B., 535.

Tiutiunnikov, G. N., purification of crude benzene and its fractions, B., 6.

Tjutjunkina, A. V. T. See Teletov, I. S. Tkatschenko, F. R., hydraulic resistance in [sugar beet] diffusion battery cell, B., 854.

Tkatschenko, K. T. See Malinovski, A. E. To, S., determination of morphine in urine of opium and morphine addicts, A.,

and Rin, A., determination of morphine in urine of opium and of morphine addicts: practical application of the reaction, A., 1140.

and Yo, K., determination of meconic acid in urine of opium addicts. I., A., 1140.

Toal, J. S., and Jones, A. J., assay of quinine in iron quinine citrate and quinine salts, B., 76.

Tobelmann, H. A., precipitating copper from solutions, (P.), B., 796.

Tobie, W. C., pigment of B. violaceus. II. Pyrrolio nucleus of violacein, A., 1561.

Tobin, C. E. See Gaunt, R. Tobin, C. J. See Boegehold, A. L.

Tobler, B. See Guyer, A.

Toby, E. M., jun., use of petroleum solvents as specifically applied to southern [American] paint formulation, B., 335.

Tocco, G., calculations for a viscose plant, B., 56.

and Cerbaro, E., maturation of cellulose solutions. II., B., 93.

Tocco, L., incidents and toxic accidents of calcium intravenotherapy, A., 239.

and Sanna, B., character of oils contained in parts (husk, endosperm, cotyledon, and embryo) of seeds of Strophanthus kombe, ispido, and grato, B., 171.

Toch, M., fish oil as a paint medium, B., 1106.

Tocher, J. F. See Stewart, A. W.

Toda, H. See Kosaka, Y. Todd, A. R., and Bergel, F., aneurin. V. Synthesis of 3-pyrimidylthiazolium salts, including an isomeride aneurin, A., 1526.

Bergel, F., and Jacob, (Miss) A., ancurin. III. Methyl a-chloro-yhydroxypropyl ketone and its application to thiazole synthesis, A., 1526.

Bergel, F., and Karimullah, aneurin. II. Synthesis of N-arylthiazolium salts; constitution of aneurin and thiochrome. IV. 5-Thioformamido-

pyrimidines, A., 348, 1526. See also Barger, G., and Bergel, F. Todd, H. R. See Shriner, R. L.

Todd, J. D., Owens, J. C., and Sherwin-Williams Co., purification of naphthalene, (P.), B., 311.

Todd, S. S., and Parks, G. S., thermal data on organic compounds. XV. Heat capacity, entropy, and free energy data for the isomeric butenes, A., 278. See also Parks, G. S.

Tödt, F., corrosive action of cold water on metals, B., 24. Standardisation of corrosion specifications and corrosion tests, B., 323. Corrosion, B., 323.

See also Spengler, O. Toennies, G., and Bennett, (Miss) M. A., isolation of cystine from wool hydrolysates, A., 226, Determination of stereochemical purity of l-cysteine, A., 320.

and Elliott, M., titrimetric determination of water and alcohols by their acidcatalysed reactions with acetic anhydride in organic media, A., 41.

Lavine, T. F., and Bennett, (Miss) M. A., specific rotation of *l*-cystine in relation to degree of neutralisation and pH, A., 320.

and Lavine, T. F., oxidation of cystine in non-aqueous media. V. Isolation of a disulphoxide of l-cystine, A., 596.

Tönnis, B. See Kögl, F.

Tensberg, E. See Vegard, L.
Toepfer, E. W., and Sherman, H. C.,
effect of liberal intakes of calcium or calcium and phosphorus on growth and

body-calcium, A., 1543.

Török, G., Hedry, M., and Neufeld, R., ascorbic acid and blood-catalase. III. Hormonal relations, A., 905.

Tofaute, W., Kuttner, C., and Büttinghaus, A., system iron-chromium-chromium carbide (Cr,C₃)-cementite, B., 1097. See also Stäblein, F.

Toffoli, C., colour and constitution of indole derivatives, A., 84.

Tohmfor, G. See Neumann, K.

Toivonen, N.J., santone inversion of fenchyl alcohol and its conditions, A., 856. Racemisation of methylsantene, A., 1259. Catalytic dehydration of β fenchyl alcohol, A., 1259. Action of isomerisation catalysts on tricyclic hydrocarbons of the terpene series, A., 1259.

Fjäder, T., and Heikel, A., anhydrobismethone (bithon), A., 205.

John, A., Sainio, E., and Kuusinen, T., synthesis of 1-methylcyclopentane-1:3-dicarboxylic acid (1-methylnorcamphoric acid), A., 331.

Veijola, T., and Friberg, S., structure of methylsantene obtained by catalytic dehydration of fenchyl alcohol by weak acids, A., 339.

Tokalon Société Anonyme, face and toilet

creams, (P.), B., 1235.
Tokarev, N. See Abeshaus, H.
Tokarev, V. P. See Koschkin, N. V.
Tokareva, F. A. See Freidlina, R. C.
Tokareva, K. See Tsukervanik, I.

Tokarski, J., podolian loess. I. Petrographical analysis of a loess profile from Grzybowice near Lwow, A., 450.

Tokita, K., bio-assay of digitalis preparations, B., 858.

Tokizaki, Y., effect of pituitary on protein metabolism. I. Pituitary preparations. II. Thyroid preparations. III. Pancreatic preparations. IV. Adrenal preparation. V. Ovarian preparations, A., 387.

Tokizaki, Y., influence of pituitary preparations on non-protein-nitrogen and urea in blood, and iodic acid in scrum, of normal and hypophysectomised dogs, A., 387.

Tokuoka, M., synthesis of carbamide from carbon dioxide and ammonia. II., B.,

Tokuyama, S., utilisation of marine fish; dietetic value of alcohol-extracted fish flour, B., 809.

and Nakahara, W., influence of diets containing proteins of various fishes on the growth of tumour in rats. I., A., 1406.

Tolansky, S., nuclear spin of iodine. II. Fine structure in the arc spectrum and a fine structure perturbation effect, A., 262. Fine structure in the (^2D) series limit terms of the 1+ spectrum, A., 262. Distribution of atomic nuclear spins, A., 1040. Deuteron-induced radioactivities, A., 1316.

and Lee, E., isotope displacement in arc spectrum of platinum, A., 772. Sputtering of large-aperture Fabry-Perot interferometer mirrors,

1223.

Toledo Scale Manufacturing Co. Bennett, H.D.Sco

Toledo Synthetic Products, Inc. Sco Howald, A. M.

Tolkatschev, S. A., and Titova, J. G., determination of sulphuric acid in solutions containing aluminium, chromium, and ferric sulphate. III., A.,

Toll, K., and Chadeloid Chem. Co., crinkled coated surface, (P.), B., 109. surface coating, (P.), B., 109. Crinkled

Tolle, C. D. See Pottinger, S. R.

Tollert, H., viscosity of aqueous solutions electrolytes. II. Comparison of specific ionic viscosities with other ionic properties of homologous elements, A., 27.

Tolman, C. P., and Noble & Wood Machine Co., colloid mill, (P.), B., 80.

Tolman, L. M. See Irsim, W. H.
Tolmatschev, J. M. See Islamov, I. I.
Tolmatschev, N. A., solubility of sodium

naphthalene-1:6-disulphonate in aqueous sodium chloride at 15°, A., 560.

Tolmatschev, P. See Polessitski, A. Tolstoi, D. M. See Volarovitsch, M. P. Tolstoouhov, A. V., and Ostro Res. Labs., purification of [p-]aminophenol[s], (P.), B., 975.

Tomarchio, G., determination of chromium in chromite, B., 541.

Tomaschek, Z. See Patai, E. Tomashov, N. See Akimov, G. V.

Tomaszewski, W., cardiac tonus under the influence of adrenaline and acetylcholine, A., 1562.

Tombeur, F., and De Clerck, J., comparative tests of various hops, B., 1121.

Tombs, D. M. See Awender, H.

Tomco, M., complete analysis of resins. II., B., 703.

Tomesco, P., Cosmulesco, I., and Serban, F., crystallisation of [sodium] chloride in presence of cerebrospinal fluid, A., 501.

Ionesco, N. G., and Constantinesco, P., polypeptidæmia in pellagra, A., 366. Tyrosine index of polypeptidæmia in malaria therapy [of paralysis], A.,

Tomesco, T. See Kahane, E.

Tomiček, O., and Feldmann, J., acidity determination in non-aqueous solutions, A., 1133.

and Hubrová, M. K., argentometric studies. IV. Determination of ferri-

cyanide, A., 1222.

and Jašek, M., volumetric determinations in strongly alkaline solutions. III. Titration of thallium and cerium with hypobromite, A., 179.

Tomisawa, S., alteration in content of alkaline-earth metals in pathological body-fluids, A., 1541.

Tomita, M., and Kumon, T., chemistry of blow-fly larvæ, A., 498. See also Kondo, H.

Tomiyama, T., proteins of food-stuffs. V. Contents of cystine and tryptophan, A., 509.

and Schmidt, C. L. A., solubilities of l-proline and l-hydroxyproline in water, calculated heats of solution, and partial molal volume of l-hydroxy-

proline, A., 152.

Tomka, P. See Gyulai, Z.

Tomkins, R. G., microbiology of fruit, B.,

Tomlinson, F. S., dyeing of natural silk and rayon, B., 1203.

Tomlinson, G. H., and Collinge, H. K., distribution of blow heat in alkaline

pulping, B., 925.

Tomlinson, G. H., jun., and Hibbert, H., lignin and related compounds. XXIII. Preparation and methylation of spruce ligninsulphonie acids. XXIV. Formation of vanillin from waste sulphite liquor. XXV. Mechanism of vanillin formation from spruce ligninsulphonie acids in relation to lignin structure, A., 478.

Tommila, E., dependence of anodic oxidation reactions on the electrode material in organic electrolyses, A., 1214. Electrochemical investigations with a-hydroxy-

acids, A., 1347.

Tomoda, Y., effect of aëration on alcoholic fermentation, A., 639. Fermentation of cellulose by thermophilic bacteria. V. Colloidal substances produced. VI. Formation of lactic acid, A., 640.

Tomonaga, S. See Nishina, Y.
Tomonari, T., solution of cellulose nitrate. I.—III., A., 28. Optical properties of liquid mixtures of ketones and alcohols, A., 789. Action of bromine on acctone in presence of various solvents, A., 825. Additional intermediate product in nitration of cellulose, B., 783. Nitration of cellulose in presence of phosphoric acid, B., 783.

Tompa, \hat{H} ., simple relations between vibrational frequencies of isotopic mole-

cules, A., 922.

Tompkins, F. C., absorption of gases on

sodium chloride, A., 560.

Tompsett, S. L., distribution of lead in human bones, A., 498. Determination of lead in potable waters, B., 1134. See also Anderson, A. B.

Toms, H., bromine vapour method for determination of the halogen absorption

of oils, B., 461.

Tomsicek, W. J. See Kolthoff, I. M. Tomula, E. S., determination of chlorate and perchlorate in presence of large amounts of nitrate, A., 176.

Tonakanov, S. K., bessemerisation of copper matte with oxygen-enriched air, B., 197.

Tonegutti, M., stability tests of ballistite in presence of calcium oxide, B., 525.

Tongberg, C. O., Quiggle, D., and Fenske, M. R., composition of straight-run Pennsylvania gasoline. IV. Fractionation of straight-run gasoline, B., 307.

Quiggle, D., Fry, E. M., and Fenske, M. R., susceptibility of gasolines to lead tetraethyl and aniline, B., 866.

See also Fenske, M. R.

Tongeren, W. van, quantitative spectral analysis. I.—III., A., 306, 441, 692. Mineralogical and chemical composition of syenite-granite from Bockit Batoe near Palembang, Sumatra, A., 958.

Toni, G., use of viscose staple fibre in

medicine, B., 1127.

Tonks, L., motion of electrons in crossed electric and magnetic fields with spacecharge, A., 540.

Tonn, W., and Günther, H., testing of tin-

lead solders, B., 1158.

Tonnar, P. B., metallurgical furnace, (P.), B., 746.
Tonney, F. O., vitamin-D in child health,

A., 1161.

Toohey, E. A., Hughes, Archibald, and Johns-Manville Corp., waterproofing of [fibrous] heat-insulating material, (P.), B., 352.

and Johns-Manville Corp., manufacture of moisture-resistant mineral wool,

(P.), B., 988.

Toole, M. G., and Gould, R. E., progress report on tests of various electric heating elements for furnace temperatures between 1100° and 1500°, B.,

See also Gould, R. E.

Tooley, F. V. See Fryling, C. F. Tootal Broadhurst Lee Co., Ltd., Battye, A. E., Marsh, J. T., Tankard, J., Watson, W. H., and Wood, F. C., improving crease-resisting properties of textile materials, (P.), B., 832.

Corteen, H., Foulds, R. P., and Wood, F. C., treatment of textile materials,

(P.), B., 100.

Foulds, R. P., and Bazzocchi, A., textile fibres and yarns and [pile] fabrics made therefrom, (P.), B., 1090.

Toothill, M. C. See Sherman, C. C.Topley, B., and Weiss, J., isotope exchange between hydrogen bromide and brom-

ine, A., 1080.

See also Hirschfelder, J., Hughes, E. D. Ingold, C. K., Juliusburger, F., and Wheeler, A.

Topley, W. W. C., Wilson, J., and Duncan, J. T., mode of formation of aggregates in bacterial agglutination, A., 877. Toporec, A., atomically divided silver, A.,

427.

Toporescu, E., depolymerisation of water by capillarity and the inversion of sucrose, A., 802. Preparation of sodium hydrogen carbonate, A., 944. Transformation of carbamide into ammonium carbonate, A., 1097.
Toptschiev, A. V., preparation of pure

 N_2O_4 , A., 690.

See also Schorigin, P. P.

Toptschiev, K. S., s-di-(α-picolyl)thio-carbamide, A., 612. Action of carbon disulphide on methylpyridonimine, A., 734. Nitration method of 8-nitro-6methoxyquinoline, A., 734. Cases of mobility of the nitro-group; mobility of the nitro-group in 5:8-dinitro-6-methoxyquinoline, A., 734.

Toptschiev, K. S., mobility of the nitrogroup. I. Nitro-group mobility in 3:4-dinitroanisole. II. Preparation of 3:4-dinitroanisole, A., 838. N-Methylpyridinethiouram disulphide, A., 862. Toptschieva, K. V. See Nesterova, V. I.

Toral, T., preparation of disilicon hexa-

chloride, A., 946.

Torbert, H. C., effect of fasting on serumprotein concentration of the rat: existence of an immediately utilisable circulating protein fraction, A., 621.

Torboli, A., "Donaggio reaction" in urine of fatigued individuals, A., 363.

Toreev, N. M., working split-grain side of goat and sheep skins for chrome-tanned garment and lining material, B., 947. Torf, S. F. See Magidson, O.J.

Torigian, J., and Drug Products Co., therapeutic agent and manufacture of colloidal calcium malate, (P.), B., 524.

Torii, T. See Shibuya, K. Torii, Y. See Kameyama, N.

Torikai, R., fine [metal] powder, (P.), B.,

Toriyama, M. See Winokuti, K. Tornianen, M. See Virtanen, A. I.

Toropov, N. A., fayalite slag from the Karabasch works, B., 549.

See also Beljankin, D. S. Torotscheschnikov, N. S. See Kritschevski, I. R.

Torrance, S., determination of small amounts of copper in tin by controlled potential, B., 1210.
Torrence, T. A. See Aluminum Co. of

America.

Torres, I., synthesis of creatinephosphoric acid in organ extracts and in living spermatozoa, A., 369.

See also Collazo, J. A.

Torrey, H. C., viscosity of deuterium, A., 1331.

Torrey, J. P., and Graham, R., experimental salt poisoning in ducks, A., 518. Torrie, J. H. Seo Aamodt, O. S.

Torrisi, D., sodium, potassium, calcium, and inorganic phosphate of blood during prolonged fasting, A., 94. Action of lipins on lacteal secretion and the chemical composition of milk. I. Action of lecithin and cholesterol introduced by the parenteral route in the goat. II. Action of the total lipins of egg-yolk. introduced by the parenteral route in the goat, A., 361. Alkaloid content of infusions and decoctions of seeds of Lupinus albus, A., 913.

Torroja, J. M., and De Montaud, G., highfrequency electric induction furnace,

B., 1163.

See also Cabrera, B. Torsuev, N. S., explosivity of fertilisers containing ammonium nitrate, B., 659.

Torulf, H. G. See under Allmänna Ingeniörsbyran, H. G. Torulf.

Toscani, V. See Milhorat, A. T. Tosterud, M., and Aluminum Colors, Inc.,

treatment of aluminium and aluminium-alloy surfaces, (P.), B., 1102.

See also Aluminum Co. of America. Toth, G. See Zechmeister, L.

Toth, L. von. See Beznák, A. von. Totten, W. P. See Anderson, A. A.

Tottingham, W. E. See Lease, E. J., and Nagy, R. Totzek, F. See Koppers Co. of Delaware.

Touceda, E. G., and Consolidated Car-Heating Co., composition of matter [dental alloy], (P.), B., 603. Tougarinoff, B., use of nitrophenylarsinic acid as a reagent for tin, A., 1353.

Toul, F., catalysis of acetylene polymerisation in ultra-violet light by mercury

vapour, A., 37.
Tourky, A. R., and Bangham, D. H., colloidal silica in natural waters, and the "silicomolybdate" colour test, A., 1482.

Tournaire, (Mlle.) A., and Vassy, E., continuous spectrum of deuterium, A., 127. Comparison between the continuous molecular spectra of hydrogen and deuterium, A., 537. Influence of wave-length of light on development of the latent image, A., 1077.

Tournay, R., existence of zinc metaborate, A., 1475.

Toverud, K. U., vitamin-C content of liver of newborn infants, A., 647.

and Ender, F., vitamin-A and -D content of liver of newborn infants, A., 764. Vitamin-A and D- in liver of the newborn, A., 764.

Tower, O. F., Liesegang rings of manganese sulphide. II., A., 795.

Town, B. W., separation of amino-acids by means of their copper salts. II. Investigation of the methyl alcoholsoluble copper salt fraction, and the yield of protein from gliadin, A., 1528. Micro-determination of glycine in protein hydrolysates, A., 1528.

Towne, C. C. See Texas Co. Towne, R. W. See Hitchens, R. M.

Townend, D. T. A., and Chamberlain, E. A. C., influence of pressure on spontaneous ignition of inflammable gasair mixtures. IV. Methane-, ethane-, and propane-air mixtures, A., 801.

Townend, F. See Speakman, J. B. Townend, F. S. See Woodall-Duckham

(1920) Ltd.

Townend, R. V., and Clayton, W. R., fluidity and hydroscopic properties of shellac, B., 559.

Townend, S., partial cleaning of wool by low-temperature treatment, B., 1033.
Townes, E., and Roller, D., electrical

resistance of cadmium films, A., 1050. Townsend, J. S. E., distribution of energies

of electrons, A., 1052.

Townshend, B., and Johns-Manville Corp., light-weight ceramic article, (P.), B., 4Õ9.

Toxopeus, M.A.B. See Bijlsma, U.G.Toyama, O., hydrogenation of ethylene with nickel as a catalyst at low temperatures, A., 169.
Toyama, T., decomposing action of X-rays

on potassium iodide, A., 572.

Toyama, Y., and Akiyama, G., hexadecenol in sperm blubber oil, A., 311. Highly unsaturated alcohols in sperm blubber oil, A., 703.

and Ishikawa, Tokujo, iodine values of hydrogenated castor oil, B., 1215. Oil of Pleurogrammus monopterygius,

Pallas, B., 1215.

and Tsuchiya, T., separation of physeteric acid from sardine and pilot-whale oils, A., 189. Highly unsaturated acids in sardine oil. IX. Constitution of docosahexaenoie acid, C₂₂H₃₂O₂. Separation of highly unsaturated C24 acids. XI. Constitution of nisinic acid, $C_{24}H_{26}O_2$, in sardine oil, A., 189. Separation of selacholeic acid from cod-liver, "sukeso-dara" liver, seiwhale, and pilot-whale oils, A., 226.

byama, Y., and Tsuchiya, T., unsaponifiable matter of sei-whale oil, Toyama, A., 226. Hexadecenol and tetradecenol in sperm head oil, A., 311. Tetradecenoie and dodecenoic acids in sperm oil. I. Tetradecenoic dodecenoic acids in sperm blubber oil. II. Dodecenoic acid in sperm head oil, A., 313. Decenoic acid C₁₀H₁₈O₂ in sperm head oil, A., 705. Chloro-iodo-derivatives of linoleic and linolenie acids and dichlorodi-iodo-derivative of linolenie acid, A., 1230. Balsam pear-seed oil, A., 1307. Seed fat of "yabunikukei," Cinnamomum pedunculatum, B., 1106. Seed oils of several species of the Cucurbitaceae, B., 1106.

Toyoda, H., Kishi, S., and Nakahara, W. total sulphur and iodine in normal and

malignant tissues, A., 626.

Toyohara, Y., coastal ground water at Yumigahama, Tottori, A., 48.

Trabaud, L., petitgrain oils from French Guinea, B., 1128.

Trabert, E., and Schaum, K., photometric and spectrophotometric studies. XI. Absorption spectra of hydrocarbons and halogen derivatives in the near infra-red, A., 1049.

Trabucchi, E., determination of glyoxaline derivatives in serum, A., 222. Glycerol content of the organism, A., 1135. Alcohol and peptic digestion, A., 1152.

Trachtenberg, D. M. See Levina, R. J.Track, L. K. See Stokes, W. E. Tracy, P. H., use of stabilisers in making

ices and sherbets, B., 665.

Trafton, W. M. See Loepsinger, A. J. Trageser, G. See Schwarz, R.

Trail, D., modern trends in the lacquer industry, B., 510.

Trainer, J. E., Roger, J. P., and Babcock & Wilcox, Ltd., furnace, (P.), B., 672. See also Babcock & Wilcox, Ltd.

Tramasure, M., pharmaceutical kaolin, B., 858.

Trambies, J., and Pásztor, I., iron and copper content of butter and the resulting damage to butter, B., 855.

Tramm, H., [analytical] absorption vessel for gases and vapours, (P.), B., 624. Clar, C., and Ruhrchemie Akt.-Ges., fertilisers, (P.), B., 613.

and Ruhrehemie Akt.-Ges., chlorination of hydrocarbons, (P.), B., 1140. See also Grimme, W.

Trankovskaja, N. See Fainberg, B. Trans-Lux Daylight Picture Screen Corporation. See Newman, D. F.

Transehe-Roseneck, G. von, bleaching of textile materials, (P.), B., 143.

Trant, R., providing [steel] tubes with an internal protective covering [of bitumen], (P.), B., 417.

Trapeznikov, A. K., structure of CuAl2, A., 668.

See also Kosolapov, G. F.

Traphagen, F. W., and Ore Solvents Corp., metallurgical process and apparatus, (P.), B., 998.

Trapp, H., determination of calcium phosphates, A., 43. Solubility of oxalic acid and oxalates of the alkaline earths in mineral acids. I., A., 282. Analytical notes, A., 577.

Trask, P. D., and Hammar, H. E., study of [petroleum] source beds in late mesozoic rocks on the west side of the Sacramento Valley, California, A., 818.

Traub, H. P., Robinson, T. R., and Stevens, H. E., latex test for maturity of papaya fruits, B., 217.

Traube, I., adsorption problems, A., 154. Theories of narcosis, A., 240.

Traube, W., preparation of copper-containing cellulose solutions with employment of dilute aqueous ammonia, (P.), B., 366.

and Funk, A., chemical changes occurring during the solution of cellulose in Schweitzer's reagent, A., 971.

Piwonka, R., and Funk, A., behaviour of salts of cupricellulose towards alkylating agents. I., A., 971.

Traudt, W. F., pulp or fibrous-mass breaker,

(P.), B., 48.

Trautmann, B., nickel-clad sheets for

chemical industry, B., 840.

Trautmann, G. See Dimroth, K., and Thiele, W.

Trautmann, S. See Ambard, L. Trautwein, H. See Rosenthal, Gerhard. Trautz, O. R. See Niederl, J. B.

Travagli, G., new catalytic behaviour of mercuric salts. I., A., 1471.
Travell, J. See Gold, H.

Travers, A., causticisation of alkali salts in presence of calcium aluminates, B., 144. Constitution of aluminate cements, B.,

193. Constitution of aluminous cements, В., 885. Travers, M. W., thermal decomposition of

certain gaseous organic compounds, A., 191. Formation of condensation products from simple hydrocarbons, A., 309. Kinetics of gas reactions: attempt to connect thermal decomposition and oxidation processes, A., 1072.

[with Sollers, R. G.], polymerides of acetaldehyde, A., 316.

and Seddon, R. V., thermal decomposition of acetaldehyde and ethylene oxide: existence of short-lived intermediates, A., 825.

See also Gay, P. F.

Travers, W. J., protection of metals [nickel-plating of aluminium], (P.), B., 106.

Traves, F. See Miller, C. C.

Travin, A. I. See Magidson, O. J.

Traxler, R, N., bituminous plastics; determination of flow properties, B., 801. Consistency of concentrated suspensions, B., 1075.

and Schweyer, H. E., increase of viscosity of asphalts with time, B., 991. Measurement of high viscosity, B., 1071.

See also Schweyer, H. E.

Traylor Engineering & Manufacturing Co. See Shafter, R. R.

Treadwell, C. R. See Eckstein, H. C. Treanor, F. See Barton, A. J. Treesdale Laboratories, Inc. See Hoch-

stetter, F. W.

Trefethen, J. M., peculiar type of zoning in felspar, A., 1088.

Trefiliev, I. A., hydrogenation of wood tar, B., 402.

Tréfouël, J., Tréfouël, (Mme.) J., Nitti, F., and Bovet, D., activity of p-aminophenylsulphonamide on experimental streptococcal infections in the mouse and rabbit, A., 232

See also Fourneau, E.

Tréfouël, (Mme.) J. See Fourneau, E., and Trefouel, J.

Tregubov, A., combined cements, B., 235.

Trehan, K. N. See Husain, M. A. Tréhin, R., absorption spectra of hydrochloric acid and various chlorides in the

far ultra-violet, A., 661.

Treibs, A., chlorophyll and hæmin derivatives in organic minerals, A., 1358.

[with Dornberger, F., Albrecht, A., Schröder, C. G., Reinecke, H., and Emmerich, H.], synthesis of pyrroles with attached isocyclic ring, A., 1269. Treibs, W., determination of constitution

of sesquiterpenes by powerful oxidative degradation. III. Betulol, A., 339.

Treje, R. See Benedicks, C.

Treloar, L. R. G., relation between secondary emission and work function, A., 656. Measuring secondary-electron emission from filaments, A., 771.

Trelogan, H. C., and Combs, W. B., distribution of butter fat in frozen cream, B., 1015.

Trembour, M. R., composite steel articles, (P.), B., 415.

Tremearne, T. H. See Jacob, K. D., and Wiebe, R.

Trénel, M., determination of waterholding power of soil, B., 245. Trengove, S. A., hydrothermal oxidation of

manganese minerals, A., 699.

Trenkler, F., characteristic vibrations of mechanical molecular models. III. Plane six-membered ring and its derivatives, A., 782.

Trenknerówna, $M_{\cdot,\cdot}$ synthesis of (A) di(coumarino-3-carboxyl)methane (B) 7:7'-dihydroxydi(coumarino-3-carboxyl)-

methane, A., 1118.
Trensz, F., lipins and melano-flocculation (Henry's reaction), A., 365. Activity of melanin, distilled water, and various indicators in Henry's reaction, A., 1015.

Trent, W. R. See Whitmore, F. C. Trenzen, C., electric-discharge tubes, (P.), B., 418.

Trepp, S. G. See Schoepfle, C. S.

Tress, E. M., vitamin-A as a prophylactic against the common cold in groups of school children, A., 1428.

Tress, H.J. See Drew, H.D.K.

Tressler, D. K., fresh vegetables rich in vitamin-C, B., 568.

 Mack, G. L., and King, C. G., vitamin-C content of vegetables. I. Spinach,
 B., 472. Factors influencing vitamin-C content of vegetables, B., 1231.

and Pederson, C. S., preservation of grape juice. II. Factors controlling rate of deterioration of bottled Concord grape juice, B., 471.

See also Champlin, F. M., Mack, G. L., and Walsh, W. F.

Tretolite Co. See De Groote, M., Keiser, B., Roberts, C. H. M., Stehr, C. N., Walker, J. C., and Wirtel, A. F.

Treu, M. See Kapp, G.

Treub, J. P., step-wise separation and useful effect; construction of separation diagrams, A., 1281.

Trevithick, H. P., and Lewis, R. R., rice oil, B., 1105.

See also Irwin, W. H.
Trevorrow, V. See Fashena, G. J.
Trew, V. C. G., and Spencer, J. F., magnetic susceptibility and other properties of binary mixtures of organic liquids, A., 558. Diamagnetic susceptibility heavy water, A., 786, 928.

Trey, F., destruction of an adsorbed rectifying film by pressure, A., 548.

Tria, E., and Capaldi, B., modifications of the urinary reaction following renal denervation, A., 362.

and Nicolazzo, A., urinary modifications in the dog and rabbit following vagotomy, A., 228.

Triché, H., spectrographic study of modifications undergone by the surface of light alloys; application to duralumin, A., 559. Quantitative spectral analysis, A., 1477. Spectrographic examination of

alloys, B., 238. Quantitative spectral analysis: application to determination of chromium, B., 375.

Triem, G. See Langenbeck, W.

Triendl, E., enzymic fission of difficultly hydrolysable glucoside of senna leaves, A., 1554.

Trieschmann, H. G., absolute value of C.H linking moment, and sign of charge of the hydrogen atom in organic carbon compounds, A., 667. Intermolecular force effects with the isomeric $\beta\gamma$ -dibromobutanes, A., 1183.

Trifel, A. G. See Rudkovski, D. M. Trifonov, N. A., and Ust-Katschkintzev, V. F., electric conductivity of the system acetic anhydride-water, A.,

See also Mertzlin, R. V.
Triggs, W. W., and Seil, G. E., refractory
materials, (P.), B., 1042.

Trikojus, V. M., synthetic and natural antitermitic substances, B., 740.

Trillat, J. J., applications of X-rays to study of annealing of commercial and refined aluminium, B., 745.

and Oketani, S., electron analysis: influence of the prolonged passage of a beam of electrons through thin films, A., 784.

and Vaillé, (Mlle.) R., measurement of adsorption of oils by metallic surfaces, A., 933. Lubricating properties of mineral lubricating oils, B., 1030.

Trimbach, H. See Jacquot, R., and Terroine, E. F.

Trimble, C. S. See Whittier, E. O.

Trimble, H. M., solubility of cobaltous iodate in presence of sodium chloride, sodium iodate, and cobaltous sulphate, A., 1456.

Trinius, W. See Darapsky, A.

Triplex Safety Glass Co., Ltd., and Wilson, John, moulding powders [from methylacrylonitrile], (P.), B., 206. Stratified bodies such as safety glass, (P.), B., 1041. Cyanohydrins, (P.), B., 1082. Polymerisable compounds [acrylio acid], (P.), B., 1194. Polymerisation of methacrylonitrile, (P.), B., 1219.

Tripoli, C. J. See Beard, H. H.
Tripp, F. See Holmes, A. D.
Trischin, F. I., detection of cadmium, A.,

Trischmann, H. See Grundmann, C. Tritton, F. J., systematic reproduction in two-colour printing, B., 220.

Trivedi, H., absorption spectra of vapours, and determination of heats of sublimation of the monoxides and monosulphides of copper, iron, nickel, and cobalt, A., 134. Absorption spectra of halides of fifth group elements, A., 405. Continuous absorption spectra of diatomic molecules, A., 543. Absorption spectra of the hydrogen chloride molecule and the hydrogen bromide molecule, and upper unstable states, their 660.

Trivedi, H., application of the Franck-Condon principle to continuous absorption spectra of diatomic molecules, A., 1316. Absorption spectra of vapours of sulphur monochloride and thionyl chloride and their constitutions, A., 1317.

Trivedi, R. K., interaction of selenium oxychloride with substituted malon-

amides, A., 973.

Trobridge, G. W. Sce Dunlop Rubber Co.

Troeller, W. J. See Baldeschwieler, E. L. Trömel, G. See Möller, H.

Troflmov, A. V., photometric study of the diphenylamine reaction for determining small amounts of nitrates in water, A., 811.

cellulose, B., 1145. Preparation of Trogus, individual forms of sodium-celluloses and their significance for mercerisation. II. Formation of sodiumcellulose II., B., 1145.

See also Hess, K., and Kumiehel, W. Troitzkaja, N. I. See Charmandarian,

M. O., and Kopeliovitsch, E. L. Troitzki, N. D. See Naiman, I. M.

Trojan Powder Co. See Wyler, J. A. Troje, E., change of colour of thick-juice

in working to molasses, B., 900.

Troland, L. T., and Technicolor Motion Picture Corp., [photographic] monopack process, (P.), B., 253.

Tromnau, H. W. See Roebling, W. Tromp, F. J., application of the phase rule to systems containing distant phases,

A., 428.

Tronev, V. G. See Ipatiev, V. V.
Tronev, B. V., and Kulev, L. P., determination of activity of unsaturated organic compounds from the e.m.f. of their reaction with sodium, A., 32. Activity of hydrogen in complexes of alcohols with unsaturated organic com-

pounds, A., 162. Tronstad, L. See Brun, J., and Flood, H. Tropp, C., lignocerylsphingosin in ox lung, A., 226.

and Eckardt, B., cerebroside-containing

cerebral cyst, A., 504.

Tropsch, H., Parrish, C. I., and Egloff, G., high-temperature pyrolysis of gaseous olefines, A., 818.

Thomas, C. L., and Egloff, G., pressure pyrolysis of gaseous paraffin hydrocarbons, B., 535.

Trost, A., radioactivity of glasses, A., 918.

Trost, F., turpentine oil. I. Laricinolic acid, A., 80. Crystalline acid of Canada balsam, A., 477. Copal resin from the Congo. I. Separation of n-nonacosane, B., 68. [Determination of] higher alcohols in brandies, B., 389.

Trostel, L. J., quartz as a devitrification product of vitreous silica, B., 1152.

Trotman, E. R., stains on wool, B., 787. Trotman, S. R., determination of damage in silk, B., 1199.

Trotter, H., jun. See Beams, J. W.

Trotter, W., Wilkinson, E. W., and Minerals Separation North Amer. Corp., ore concentration [by flotation], (P.), B., 238.

Trotzki, J., and Mendelsohn, R., determination of ketones in urine, A., 1537. Troug, E. See Dean, L. A.

Trout, G. M. See Bryan, Claude S., and Gould, I. A.

Trout, S. A. See Tindale, G. B. Trow, R. F. See Texas Co.

Trowell, O. A., choline and liver respiration,

Troy, H. C., and Sharp, P. F., determination of lactic acid in dairy products, B.,

Trtílek, J. See Dubský, J. V. Trnchet, R., heavy chloroform, CDCl_3 , A., 1090.

Trueblood, H. C. See Loughridge, D. D. Trümpelmann, E. See Ges. für Forderanlagen E. Heckel m.b.H.

Truffault, R., phosphoric oxide, catalyst for polymerisation of unsaturated hydrocarbons; decallydrodiphenyl obtained by dimerisation of cyclohexene, A., 598. Condensation of benzene with unsaturated hydrocarbons and their halogen derivatives in presence of acid catalysts, A., 832.

Truhaut, R., and Odiette, D., action of diketopiperazines on fibroblasts cultivated in vitro, A., 373.

See also Huguenin, R.
Trujillo Torres, R. See García González,

Truka, T. J., lactic acid content of blood in pregnancy and in puerperium, A., 223.

See also Ernst, J.

Trumble, H. C., relation of pasture development to environmental factors in S. Australia, B., 385.

Trumpy, B., polarisation of Raman radiation and constitution of molecules. II., A., 546. Scattered spectrum of CD₂Br₂, A., 923. Structure of cosmic rays. II., A., 1315.

Trunel, P., permanent electric moment and structure of phosphorus pentachloride, A., 408. Electric moments of

aliphatic diamines, A., 1446.

Truninger, E., and Grünigen, F. von, mineral content of principal meadow plants, especially importance of potass-

ium in pasture herbage, B., 851.

Keller, F., and Pulver, H., influence of manuring on yield of cabbage and its suitability for manufacture of sauerkraut, B., 563.

Truog, E., and Drosdoff, M., determining mineral contents of soil colloids, B., 949.

See also Drosdoff, M.

Trupp, V. E. See Rubin, B. A.
Truro, V. J., fireproofing compositions, (P.), B., 1036.

Truszkowski, R., and Gnbermanowna, S., uricase and its action. VIII. Extraction and precipitation of ox-

kidney uricase, A., 241. and Zwemer, R. L., cortico-adrenal insufficiency and potassium metabolism. I. Determination of potassium in small amounts of blood and tissues. II. Blood-potassium of normal and adrenalectomised cats. III. Potassium content of skeletal and cardiac muscle in cortico-adrenal insufficiency, A., 1145.

See also Zwemer, R. L.

Truten, I. See Gei, V. Tryller, H., determination of starch in pulps, B., 71.

Trzeiński, W., storago of stall manure, B.,

Trzebiatowski, W., and Sarnowski, M., anode polarisation of metallic electrodes. I. Polycrystalline and liquid electrodes, A., 1072.

Tsai, B. See Bizette, H.

Tsai, C., and Yi, C., carbohydrate metabolism of the liver. V. Sugar intake in the normal intact cat during glucose absorption. VI. Sugar output and intake in the daily digestive cycle, A., 755.

Ts'ai, L., and Yen, W., system: aluminium sulphate-potassium sulphate-water, A., 937.

Ts'ai, L. S., and Tan, K. Y., action of formaldehyde on hide powder, B.,

See also Lo, T.S.Tsai, P.M. See Crawford, F.H.Tsao, C. N., potassium content of Chinese common salt, B., 883.

Tsao, M. See Yuan, H. C.

Tsao, P. N., and Chen, S. Y., cultivated

stramonium, B., 219. Tschaban, A. S. See Laschkarev, V. E. Tschagovetz, R., influence of work and training on the oxidation-reduction potential of muscle-tissue, A., 1548.

Tschailachian, M. C., hormonal theory of plant development, A., 1570.

Tschain, S. S. Seo Nazarov, S. A. Tschajanov, N. A., polymerisation of butadiene with a suspension of sodium, B., 229.

Tschali, V. P. See Plotnikov, V. A. Tschanpalova, N. See Klein, G. Tsohanun, G. Soo Wenger, P.
Tsohapigin, V. F. See Iljin, N. V.
Tschapurski, I. N. See Suc See Suchodski,

Tschassovenni, V. See Butkov, K. Tschelincev, G. V., condensation of carboxylic compounds with substances capable of forming organo-metallic compounds or tautomerides thereof under the influence of alkali metals and of their water-decomposable derivatives, A., 53. Syntheses using tautomeric sodium organic compounds, A., 1092. Use of organo-sodium compounds in organic syntheses, A., 1238.

and Dubinin, B. M., amide condensations. II. Transformations of acetoacetdiphenylamide, A., 1372.

and Osetrova, E. D., amide condensations. I. Preparation of acetoacetdiphenylamide, A., 463.

See also Favorski, A. E., and Salkind,

Tschelincev, V. N. [with Nikitin, E. K., and Abramova, M. A.], theory of double linkings. VI. Condensation of "furanic" compounds, A., 996.

Tschelzova, M. A. See Petrov, A. D. Tscherbov, S. I., heat of vaporisation in the system carbon disulphide-methyl alcohol, A., 675.

See also Glagoleva, A. A.

Tscherdincev, S., influence of polarised light on silver halides coloured by colloids (Weigert effect), A., 1215.

Tscherenkov, P. A., effect of a magnetic field on the visible light produced in liquids by γ -rays, A., 1440.

Tscherepnev, A. A., and Larin, N. P., activation of kaolin for catalytic processes, B., 18.

Tscherkaschin, E. E. See Petrenko, G. I. Tscherkassov, A. V., and Jolkver, E. E., blood- and cerebrospinal fluid-sugar; permeability to sugar of the brainmembranes in meningitis, A., 231.

Tscherkassov, V. See Kirsanov, A. Tschernaev, D. A. See Bart, K. V., and Markovitsch, M. B.

Tschernaja, L. A., and Ivanov, N. P., effect of phenol on antigenic and immunising properties of formalised vaccines, A., 623.

Tscherni, A. T., detection of cobalt in presence of other cations, A., 813. Determination of total manganese in manganese ores and sludges, B., 199. Determination of ferrous oxide in ores containing manganese peroxides, B.,

See also Masalski, V. L.

Tscherniaev, I. I., and Rubinstein, A. M., interaction of pyridine with the chloride and bromide of Blomstrand salt, A., 998.

Tscherniak, A. See Wiegner, G. Tscherniakofsky, P. See Nattan-Larrier,

Tscherning, K., chemistry and physiology of the androsterone group, A., 205. See also Butenandt, A.

Tschernitschkina, A. Sco Tiutiunnikov, B.

Tschernjak, F. S. See Himmerich, F. Tschernojarova, A. A. See Vanin, I. I. Tschernoshukov, N. I., and Barmakov,

N. E., preparing synthetic oils from the kerosene fractions of low-temperature carbonisation tars, B., 52.

and Kroll, B. B., preparation of lubricating oils from crude oils of the Ster-

litamak district, B., 228.

Kurlin, M. V., and Kurlina, A. M., ageing of mineral insulating oils in presence of various catalysts, B., 627. and Pinkevitsch, J. A., refining oils with

selective solvents, B., 626.

Tschernov, E. N. See Zalogin, N. G.
Tschernuishev, V. V. See Selisski, A. P.
Tscherntzov, O. M. See Drozdov, N. S.

Tscherviakov, N.J., and Ostroumov, E.A., separation of small amounts of tin in presence of antimony and arsenic, A., 1222.

Tschesche, R., saponins of the cyclopentanohydrophenanthrene group. V. Tigonin, A., 1095. Plant cardiac poisons. XI. Constitution of thevetin, A., 1517.

and Bohle, K. [with Grasshof, H.], plant cardiac poisons. IX. Constitution of digoxigenin, A., 730.

and Bohle, K. [with Sah, P. P. T.], plant cardiac poisons. VII. Constitution of uzarigenin, A., 208.

and Hagedorn, A., saponins of the cyclopentanohydrophenanthrene group. III. Constitution of Digitalis saponins. IV. Constitution of gitogenin and digitogenin, A., 209, 730. and Haupt, W., plant cardiac poisons.

VIII. Convallatoxin. X. Antiarin, A.,

477, 996.

and Offe, H. A., toad poisons. I. Dehydrogenation of cinobufagin by selenium. II. Cinoand marinobufagin, A., 81, 1517.

See also Windaus, A.

Tschesnokov, V., and Bazuirina, E., carbon dioxide factor in photosynthesis, A., 648.

Gretschutschina, O., and Jermolajeva, I., causes of liberation of large quantities of carbon dioxide in light by leaves of green plants, A., 648.

See also Bazuirina, E.

Tschetaev, A., accuracy of refractometric

glycerol determination, B., 309. Tsehevuitschalova, K. K. See Klebanski, A. L.

Tschigrov, M. A. See Joffe, J. S.Tschikareva, N. See Goldberg, D. Tschilikina, E. M. See Schujkin, N. I. Tschilingarjan, A. See Suknevitsch, J.Tschilov, K., and Mladenov, I., function of

the liver in malaria; overloading with galactose and combined overloading with insulin-glucose-water, A., 366.

Tschimuschin, F. F. See Akimov, G. V.

Tschirch, E. See Krüger, Deodata.

Tschirkov, S. K., preparation of waterglass without the use of alkalis, B., 883. Tschirner, F., and Zeolite Chem., Co., purifi-

cation of water by zeolites, (P.), B., 398. Tschishikov, D. M., and Balichina, G. S., sulphatising action of chlorine on mixtures of copper sulphate, oxide, and sulphide with ferric oxide, B., 191. and Margolina, S. S., chlorine treatment

of roasted cupriferous pyrites, B., 63. and Schakhov, A. S., complex treatment of polymetal sulphide ore of the Takeli (Middle Asia) deposit with gaseous chlorine, B., 200.

and Soboleva, O. N., precipitation of zinc and iron as hydroxides by means of lime, from solutions containing zinc and ferrous chlorides, and the properties of the precipitates obtained, B., 640. Tschistov, V. O. See Uschakov, M. I.

Tschistova, Z. G., essential oil of Artemisia sacrorum, Ledb., var. minor Ledb., B., 571.

See also Pigulevski, G. V.

Tschitschibabin, A. E., phosphoric acid as a condensing agent, A., 602. Syntheses in the pyridine series, A., 734. Tautomerism of pyridine homologues. II. Syntheses in the pyridine scries, A., 1388.

and Bestugev, M. A., nitration of thymol methyl ether, A., 465.

Tschmuir-Korsunska, O. S. Sce Vassiliev,

Tschoepe, G. Sec Durau, F.

Tschrelaschvili, S. See Tananaev, I. I. Tschuchanov, Z. F. See Grodzovski, M. K. Tschufarov, G. I., and Averbuch, B. D.,

reduction of iron oxides by gaseous reducing agents. II. Rate of reduction of magnetic iron oxide by hydrogen, A., 570. Initial velocities of reduction of hæmatite and magnetite with hydrogen, A., 1345. Influence of form of intermediate phases on velocity of reduction of iron oxide by hydrogen, A., 1470.

and Lochvitzkaja, A. P., reduction of iron oxides by gaseous reducing agents. I. Velocity of reduction of ferric oxide by hydrogen, A., 166.

and Tatievskaja, E., reaction zones in the reduction of magnetite and hæmatite with hydrogen, A., 1212.

Tschukitschev, I. P., and Jordanski, B., action of extremely minute amounts of protein (" caseinic acid") on blood pressure, A., 1147.

See also Tschukitscheva-Fedorova, M. N. Tschukitscheva-Fedorova, M.N., Dalmatov, V. A., and Tschukitschev, I. P. parenteral injection of proto-acid ("cascinic acid"), A., 1147.
and Tschukitschev, I. P., artificial protein plasma, A., 1147.

Tschuksanova, A. See Korolev, A. Tschulakov, M. D. See Vozdvischenski, G. S. Tschulanovski, V. M., rotation structure of the b'x band system of the nitrogen molecule in the Schumann region, A., 1. Tschulkov, J. I., chemical study of lowtemperature tar, B., 6. Analysis of waste waters and techno-sanitary evaluation of dephenolising methods, B., 302.

Speranskaja, M., and Bibischev, V., phenol resins, B., 243.
Tschusainov, N. J. See Vozdvischenski,

Tschutschupal, A. I. See Zilberman, G. M.

Tschveleva, M. See Papkov, S.

Tseng, C. L., and Chang, C., [preparation of] primary amines by reduction of oximes by aluminium amalgam, A.,

Chia, (Miss) P. T., and Ho, T. S., preparation of n-heptyl bromide, A. 703. Attempted preparation of benzyl fluoride from phenyldiazomethane, A., 714.

and Ho, T. S., action of hydrogen fluoride on diazoheptane, A., 1238.

and Lin, T. C., laboratory preparation of explosives. I. Tetryl, B., 349. and Mai, S. W., reactions of benzoyl

chloride [fluoride], A., 471. and Shih, W. Y., triheptylstibine and its

derivatives, A., 974.

See also Chiang, H.C.Tseou, H. F., theory of organic reactions, A., 960.

Tseu, C.Z. See Sah, P.P.T.Tsien, L. See Ny, T.

Tsien, L. C. See Gibbs, R. E.
Tsikin, S. P. See Postovski, J. J.
Tsipkina, M. N. See Odintzov, P. N.

Tsong, T., acid process for extraction of

aluminium oxide from alunite, B., 833. Tsuboi, S., petrology of common volcanic rocks of Japan, A., 307. Symmetrical extinction angles of albito-twinned plagio-

clases, A., 448. Tsuchida, R., Kobayashi, Masahisa, and Nakamura, A., configuration of bisdimethylglyoximoammine cobaltic

chloride, A., 460. See also Shibata, Y.

Tsuchikawa, H. See Ueno, S.
Tsuchiya, T. See Toyama, Y.
Tsuchiya, Y., enzymes of snake venom. I. Activation of dipeptidase by the venom of the snake Trimeresurus mucrosquamatus, A., 110.

Tsuda, Kazuhiko, parenteral administration of nitrogenous substances in artificial feeding, A., 629.

Tsuda, Kijiro, and Goshi Kaisha Tsudashiki Seisakusho, Pump water-clarifying apparatus, (P.), B., 1022.

Tsuda, Kyosuke, constitution of matrine. XVIII., A., 491.

See also Ochiai, E. Tsudzimura, H. See Plattner, F.

Tsuge, T. See Konishi, K.

Tsnji, H., [physiological] effect of acetic and substituted acetic esters of borncol, A., 515.

Tsuji, K., carbon dioxide content of peripheral lymph of rabbits, A., 98.

Tsuji, S., hæmolytic actions and surface tension of human and animal biles and cholates, A., 362.

Tsuji, T., and Tamaki, T., manufacture of nutritious condiments from fish meal. I. Hydrolysis of fish-meal protein with mineral acids. II. Quality and purification of the solution produced by hydrolysis of fish meal with mineral acids, B., 472.

Tsuji, Y. See Itano, A.

Tsujimoto, $M_{\cdot,\cdot}$ naming of the highly unsaturated acid of the kernel fat of "akarittom," Parinarium laurinum, A., 822. Man-eating shark-liveroil, B., 461. and Koyanagi, H., Japanese olive oil,

B., 648.

Tsujioka, S., adrenaline content of adrenals of splenectomised dogs, A., 115.

Tsukervanik, I., characterisation of quinols, A., 1245. and Bersutski, V., composition of

Psoralea drupacea, B., and of the oil pressed from its seeds, A., 1306.

and Bersutski, V. [with Brutzeva, C. V., and Ajzikovitsch, B. I.], composition of roots of Ferula pseudoreosolinum, Lipsky, A., 1306.

and Nazarova, Z., alkylation of phenols, A., 66.

Samsonov, P. F., Danilevski, L. P., and Sidorova, N. G., utilisation of cotton-seed husks for synthesis of glucose, lactic acid, and glycerol, B., 950.

and Tokareva, K, condensations of alcohols with aromatic hydrocarbons in presence of aluminium chloride. II. Condensation of secondary alcohols with benzene and toluene, A., 61.

Tsukuda, T. See Tanaka, Y. Tsunekawa, $M_{\cdot,\cdot}$ monel-metal chemical

screens, B., 64. Tsuneoka, S., and Murata, Y., synthesis of benzine from carbon dioxide and hydrogen at ordinary pressures. XXVII. Nickel-cobalt or cobalt-alloy catalysts. XXVIII. Nickel catalysts.

length of layer of catalyst, B., 1028. See also Murata, Y., and Sakurada, I. Tsunokaye, R., [difference in properties of silk from the] inner and outer layers of

XXIX. Influence of tube width and

silk cocoons, B., 13. Tsunoo, S., Takamatsu, M., Kamachi, T., and Imaizumi, M., avian B-avitaminosis and enzyme action, A., 528.

Tsuruta, S., fusion curve of the system o- and p-cresols, A., 428. Determination of cresol isomerides by m.-p. measurement, B., 440. Phenol-formaldehyde resins, B., 943.

Tsutsui, H., Bence-Jones protein, A., 503. Tsutsumi, S., synthetic gasoline from carbon monoxide and hydrogen. I., B., 7. Tsuzuki, K., action of tumour tissue on

hexosediphosphoric acid, A., 1539.

Tsuzuki, Y., synthesis of cyclic derivatives. of tartaric acid, A., 967. Optical rotatory dispersion of bridged derivatives of alkyltartrates, A., 1447.

Tu, C. M., and Ku, C. T., cottonseed oil as a Diesel oil, B., 1137.

and Pan, F. Y., [production of motor fuel by] dry distillation of cottonseed

oil foots, B., 1164. and Wang, C., vapour-phase cracking of crude cottonseed oil, B., 1164.

Tuan, H. C., Hsü, T. T., and Hsü, E. I. F., stereoisomerism due to restricted rotation about a single bond. II. 8-Nitro - N- benzenesulphonyl - 1-naphthylglycine and analogous compounds, A., 1243.

Tubize Chatillon Corporation. See Barthélemy, H. L., and Mitchell, Winfred

Tuchman, L. See Schifrin, A. Tucholski, T., and Rideal, E. K., reaction of hydrogen and deuterium with ethylene at a nickel surface, A., 169.

Tuchovitzki, N. V., "fatty" acids in stump rosin, B., 68.

Tuck, \hat{J} . L., and Warhurst, E., effect of temperature on absorption of resonance radiation by sodium atoms, A., 1347.

See also Eley, D. D., and Fairbrother, F.

Tuck, V. L. See Robertson, W. E.

Tucker, R. P., oil sprays; chemical properties of petroleum oil unsaturates causing injury to foliage, B., 709.

Tucker, S., and Minerals Separation, Ltd., apparatus for concentrating minerals

by flotation, (P.), B., 961.

Tucker, W. K., and California Packing Corp., maraschino-type cherries, (P.), B., 1126.

Tuckey, H. B., and Brase, K. D., fruit-tree root stocks and plant propagation. II., B., 422.

Tuckey, S. L., sediment in cream, B., 855.

Tudor, (Mlle.) C., kinetic energy of positive thermions of some halides, A., 657.

Tudor-Hart, O., treatment of coir fibre [for production of artificial horsehair], (P.), B., 313.

Tudorovskaja, N., refractive index of glass

below 300°, B., 369. Tuemmler, F. D. See Hale, A. H. Türck, I. See Brand, K.

Tuffi, R., and Borghetti, E., differentiation of rice from oats in flour from adulter-

ated wheat, B., 296. Tufts, E. V. See Greenberg, D. M.

Tufts, J. L., treatment of metal, (P.), B.,

Tukamoto, T. See Asahina, Y. Tulane, V. J. See Cooper, S. R. Tuley, W. F., and United States Rubber Co., vulcanisation of rubber, (P.), B., 946. Treatment of rubber, (P.), B., 1113.

Tulleners, A. J. Sec Waterman, H. I. Tullis, D. A., and Longden, E., filters [for air, etc.], (P.), B., 769.

Tullis, D. R., and Oakley, P., treatment of animal fodder, (P.), B., 811.

Tully, W. C., and Franke, K. W., comparative metabolism of several calcareous materials used in poultry-feeding, B., 122.

See also Franke, K. W.

Tulparov, A. I., bitumens in Donetz bituminous coals, B., 915.

Tůma, V., protein reaction for more definite identification of blood-stains, A., 95. Tumarkin, D. See Sakostschikov, A.

Tung, W. L., Kao, Cheng Heng, Kao, Chung Hsi, and Sah, P. P. T., m-nitrobenzovlthiocarbimide as a reagent for identification of amines, A., 462. Tunin, V. See Severin, S.

Tunison, A. V. See McCay, C. M.Tunnicliff, E. A. See Marsh, H.

Tuot, M., secondary acyclic alcohols with seven to ten carbon atoms, A., 820.

Tupholme, C. H. S., silicon-iron alloys for chemical plant, B., 1156.

Turbin, L., rapid determination of clay in soap, B., 28.

Turcan, J., constitution of Schiff's bases, A., 456.

Turchan, E. J. See Kuzminich, I. N. Turchtt, G. E., bacteriological and biochemical relationships in the pyocyaneus-I. Chromogenic fluorescens group. function in relation to classifications, A., 1155.

See Crane, H. R., and Turin, J. J. Gaerttner, E. R.

Turk, K. L., Morrison, F. B., and Maynard, L. A., nutritive value of proteins of maize-gluten meal, linseed meal, and soya-bean oil meal, B., 347.

Turk, R., and Porcelain Enamel & Manufg. Co. of Baltimore, enamelled articles carrying a gloss and matt finish, B., 276. Porcelain enamelled articles of change-

able [shot] colour, (P.), B., 835.

Turkington, V. H., and Bakelite Corp., oil-soluble resin, (P.), B., 653.

Butler, W. H., and Bakelite Corporation, drying oil composition, (P.), B., 109. and Floor Covering Patents Inc., floor covering, (P.), B., 109.

Moore, R. J., Butler, W. H., and Shuey, R. C., phenolic resin varnishes; influence of linseed oil on film properties, B., 68.

Turkuletz, M-Z rectifier in electrochemical practice, B., 747.

Turletti, A., glycæmia and its regulation in carbohydrate metabolism, A., 1284.

Turley, H. G., unhairing of hides and skins, (P.), B., 1058.

Turnage, W. V. Sce Shreve, F.

Turnau, R., milk sera for refractometric studies, A., 1139. Relation between cell-membrane and crude fibre in vegetable food-stuffs, B., 42. Determination of crude fibre in vegetable food-stuffs, B., 472.

Turnbull, A. D. See Fingland, J. J.Turner, A. H., and Benedict, F. G., basal metabolism and urinary nitrogen excretion of Oriental women, A., 506.

Turner, A. J., Kittredge, H. G., and Kay & Ess Chem. Corp, waterproofing and polishing compound, and fireproof waterproofing and polishing compound, for wood, (P.), B., 104.

Turner, C. F., corrosion problem in a city

[gas] plant, B., 865.

Turner, C. W. See Gardner, W. U.,
Garrison, E. R., McShan, W. H., Nelson, W. O., and Reece, R. P.

Turner, E. E. See Lesslie, (Miss) M. S. Turner, (Miss) E. G., and Wynne, W. P., toluene series. VII. Nitration of 2chlorotoluene-4- and -5-sulphonic acids and their sulphonyl chlorides, A., 832.

Turner, E. L., maraschino-type cherries, B., 760. Fruit pectin, B., 761. and Smith, W. J., dry [photographic] plate reducers, B., 220. See also Smith, W. J.

Turner, E. T. See Smiley, L. D.

Turner, F. S., screens for cathode-ray apparatus, (P.), B., 647.

Turner, G. M., and Birdsey, C. R., formed gypsum products; (P.), B., 546.

Turner, H. G., and Keene, W. L., volatile matter of Pennsylvania anthracite, B.,

Turner, J. S., colour-permanence in printing inks, B., 205.
Turner, K. B. See Shillito, F. H.

Turner, L. A., stepwise fluorescence in mercury vapour: the 3650 line, A., 1310. Turner, P. E., effect of manurial treatment on growth of sugar cane. I. Early tiller formation of plant canes, B.,

Turner, R. G., blood-alcohol and its relation to intoxication in man, A., 891.

Turner, S. D., and Le Roi, E. J., octanenumber improvement in naphtha reforming, B., 178.

Turner, W. D., liquid absorption tube, A.,

Turner, W. E. S., and Weyl, W., constitution and colour of glasses containing iron and manganese oxides, B., 20.

See also Dimbleby, V., Holland, A. J., and Preston, E.

Turner & Newall, Ltd., and Still, W. G., sound-absorbing coverings for walls, ceilings, etc., (P.), B., 1096.

Turner Tanning Machinery Co., treating of sheet material [varnished leather] [with ultra-violet light], (P.), B., 1114.

See also Brophy, J. J. Turova-Pollak, M. B., destructive catalysis of hydrindene and hydrindane, A., 1497.

and Dzioma, V. F., catalytic preparation of esters of glycol and acetic acid. II., A., 821.

Turtschin, T. W., decomposition of nitrites in base-unsaturated soils: nitrification, B., 562. Rôle of potassium and phosphorus in the assimilation of different forms of nitrogen by plants, B., 708.

Turuoka, S. See Hayashi, M.

Túry, P., and Krausz, S., effect of molecular nitrogen on molybdenum at high temperatures, A., 1350.

Sec also Gen. Electric Co. Tuschak, N. See Nichita, G.

Tutin, J., absorption of residual neutrons, A., 264.

Tutiyama, I. See Skikata, M.
Tutscholski, T., and Woloszczuk, A., absorption spectra of oxyhamoglobin of some Vertebrata, A., 1282.

Tuttle, C., recording physical densitometer, B., 1020.

Tuttle, F. E., apparatus for analytical laboratories; crucible support for desiccators, graduated cylinder, and flask cover, A., 956. See also Kodak, Ltd.

Tuttle, J. See Winning, C.

Tutundžić, P. S., simultaneous cathodie and anodic direct-current polarisation of electrodes. II. Anodes of platinum, palladium, and gold, A., 293. Conductivity of mineral waters. II. Mineral water of Rogaška Slatina, A., 816.

Tuve, M. A., and Hafstad, L. R., scattering of neutrons by protons, A., 1314. Carbon reactions and the corrected mass scale, A., 1439. Heydenburg, N. P., and Hafstad, L. R.,

scattering of protons by protons, A., 539.

See also Hafstad, L. R.

Tuzi, Z., and Oosima, H., correction of gas refractometer reading for temperature and pressure change, A., 1223.

Tuzioka, S., influence of thyroparathyroidectomy and of bile acids on bile secretion, A., 516.

Tnzson, P. See Zechmeister, L.

Tverdovski, I. P. See Rudnitski, A. A. Twarowska, B., alterations in spectra of

solutions of diacenaphthylidene. I. Influence of solvent on fluorescence and absorption spectra. II. Influence of temperature on the fluorescence spec-

trum, A., 544.
Tweddell, J. H. See Boyd, E. M.
Tweedy, W. R. See Roberts, R. G.

Twells, R., spray-drying process: some possible applications to ceramics, B., 1094. Effect of hydrochloric acid and ammonia on properties of reworked [electrical porcelain] bodies, B., 1153. Twenhofel, W. H., greensands of Wisconsin,

A., 1484.

Twining, R. H. See Olson, E. T.

Twiss, D., and Farinholt, L. H., halogenation of o-sulphobenzoic anhydride, A., 1377.

Twiss, D. F., practical consequences of the chemical character of rubber, B., 511. Indiarubber: man's modifications of a natural product, B., 945.

See also Dunlop Rubber Co., and Internat.

Latex Processes.

Twitchell Process Co. See Reddish, W. T. Twomey, A. C., and Twomey, S. J., selenium and duck sickness, A., 1023.

Twomey, S. J. See Twomey, A. C. Twort, C. C., and Twort, J. M., induction of cancer by cracked mineral oils, A.,

230.

Twort, J. M. See Twort, C. C. Tyberghein, E. C. E., and De Backer, P. J..

coffee free from caffeine, (P.), B.,

Tyce, G. C. See Imperial Chem. Industries. Tydeman, W. G., maintenance of industrial chemical plant, B., 720.

Tyler, D. B. See Greeley, P. O. Tyler, P. M., trends in white-pigment consumption, B., 751.

Tyler Co., W. S., apparatus for screening materials, (P.), B., 480.
Tyndale, H. H. Sco Levin, L., and Smith,

Tyndall, E. P. T., effect of additions of cadmium on growth of zine crystals, A., 15.

Tyner, L. E., and Sanford, G. B., production of sclerotia by Rhizoctonia solani, Kuhn, in pure culture, A., 1422.

Tyren, F., wave-length determinations for the L series of elements 29 copper to 26 iron, A., 539.

See also Edlén, B.

Tyrer, D. See Imperial Chem. Industries. Tyrrell, E. G., plaster-fibre ceiling and wallboard, (P.), B., 644.

Tyson, T. L. See Gutman, A. B.

Tzagikjan, E. A. See Ageenkov, V. G.
Tzechnovitzer, E. V., preparation of single crystals of sodium nitrate from the

molten salt, A., 573.

Tzereschko, V.I. See Salkind, J.S.Tzerkovnikova, I. M. Sec Bukreeva-

Prozorovskaja, L. M.

Tzigelman, A. I. See Gutkina, E. L. Tziurich, L. G., chlorination of di- and tri-chloroethane, B., 1032.

Efremova, E. M., Bartaschev, V. A., and Jappu, J. G., vinylacetylene as a primary product of polymerisation of acctylene under different conditions, A., 961.

and Ginzburg, A. A., rôle of intermediate compounds in catalytic polymerisation of acetylene. I. Reaction of acetylene with solutions of cuprous and ammonium chlorides, A., 451.

and Rotenberg, I. A., $a\delta$ -dibromobutane from divinyl, A., 962.

Tzoni, (Mrs.) H., formation of potassium eugonoxide crystals during examination of plant ashes in violet oil, A., 910. Coforimetric determination of vitamin-D, A., 1568.

See also Halden, W.

Tzukerman, B. I., and Metlitzkaja, R. A., effect of preliminary operations on dyeing of leather, B., 382.

See also Metlitzkaja, R. A. Tzukerman, L. E. See Maier, L., and Stepanenko, M. A. Tzvetkov, V. See Frederiks, V.

U.

U.S.B. Process, Ltd. See Boriau, O. A. Ubbelohde, A. R., oxidation mechanisms in aqueous solution; [manganic sulphate as a reagent], A., 44. Combustion of hydrocarbons. I. Influence of molecular structure on hydrocarbon combustion. II. Absorption spectra and chemical properties of inter-mediates, A., 294. Zero point energy in determination of structure of solids, A., 411. Mechanism of hydrocarbon

combustion, A., 1209.

Drinkwater, J. W., and Egerton, A.,
pro-knocks and hydrocarbon com-

bustion, B., 356. See also Egerton, A.

Ubbelohde, L., suspended-level viscosimeter, B., 436. Treatment of felts for paper machines, (P.), B., 1088. Position and prospects of mineral oil research, B., 1188.

Ubben, R. T. See Du Pont de Nemours & Co., E. I.

Uber, A. See Seidel, F.

Uber, F. M., and Godspeed, T. H., microincineration. III. Shrinkage phenomena during carbonisation and ashing of wood, B., 1026.

Uchida, A., bacterial growth and hydrogenion concentration. I. In bouillon. II. In peptone water, A., 1422.

Uchida, M., viscosity of the sol of Yamagata water-imbibing clay, a species of bentonite, B., 497.

Uchida, S., most economical pipe diameters for high-pressure chemical plants, B., 127. Economic balance of waste-heat boilers attached to coment rotary kilns, B., 148.

and Maeda, S., influence of fluid velocity on heterogeneous reactions. IV. Absorption of ammonia in wetted-wall towers, A., 166.

and Matsumoto, K., distillation. III. and IV., B., 959.

and Shionoya, S., influence of fluid velocity on heterogeneous reactions. V. Model experiment of chemical change in packed towers, 166.

Uchida, Y., glow spectra of halogen molecules, A., 1437.

Ucko, H., bromine in the body, A., 914. Udagawa, H., phosphodiesterase and hydrolysis of lecithin, A., 521.

Udall, D. H., detection and control of mastitis, B., 250.

Uddeholms Aktiebolaget, purification or refining of sulphate- or soda-cellulose, (P.), B., 269.

Uddin, M. Z. See Shoenberg, D.

Udo, S., natto, or fermented soya bean. I. Effect of the dipicolinic acid produced, A., 1029.

Udovitschenko, L. V., enrichment of crude anthracene in centrifuges, B., 263. Steam-distillation of tar, B., 966. Udy, M. J., treatment of chrome-iron

ores, (P.), B., 415.

and Swann Res., Inc., simultaneous production of phosphoric acid and silicon alloys, (P.), B., 641.

Udylite Process Co. See Soderberg, K. G. Uebel, O. See Ender, W. Ueda, S. See Shinoda, J., and Ueno, S.

Ueda, Y., Japanese dyeing tannins. XV. Absorption of various tannin extracts by cellulose, B., 450.

Ueda, Y., and Nakamura, S., formylcellulose. V. Determination of the formyl group therein, B., 1085.

Uemura, Y. See Arakatsu, B. Uenaka, M., and Kubota, B., formation s-dibenzocyclodocosanedione, 727.

Ueno, J., deficiency of vitamin-B and ondocrine glands of female white rats, A., 390. Effects of vitamin-B on female genital organs of white rats, A., 390.

Ueno, K. See Itough, T.

Ueno, S., nutritive value of hydrogenated oils, B., 42. New alcohols and hydrocarbons in sperm oil, B., 158. Hydrogenation of castor oil under high pressure, B., 648. Preparation of a gold soap solution in chaulmoogra oil; its therapeutic effect on lepers, B. 667.

and Inagaki, G., quality of Japanese fish oils from viewpoint of the hardened oil industry. V. Quality of sardine and herring oils, B., 242. Splitting of fats by the autoclave process and the synthesis of some glycerides, B.,

700.

and Iwai, M., investigation of saturated acids of completely hydrogenated oils by method of fractional distillation. I. Hardened cottonseed oil, B., 158.

and Koyama, R., new constituents in the unsaponifiable matter of sperm

blubber oil, A., 1091.

and Matsuda, Sumio, fractional dis-tillation of fatty acids of highly hydrogenated [fish] oils. II., B., 241.

and Nakaguchi, S., cooling curves of natural and hardened oils, fats, and waxes, and of paraffins. I. Solid fats, waxes, and similar substances. II. Oils, waxes, and similar substances in the liquid state, B., 460, 1004.

Ota, Y., and Ueda, S., colour reactions of vitamin-A, -D, and -E, and of some sterols, A., 389. Vitamin-E. III., A., 906. Nutritive value of some commercial margarines and of natural butter, B., 713.

and Takeuchi, T., fractional distillation of saturated fatty acids of highly hydrogenated oils. III. Composition of completely hardened beef tallow, lard, and horse fat, B., 378.

and Tsuchikawa, H., practical value of technical stearin for candle-making,

B., 242.

Yokoyama, S., and Iwakura, Y., properties of alkyl alkali sulphates derived from higher fatty alcohols for detergent and wetting agents, B., 137.

and Yonese, C., occurrence of new highly unsaturated fatty acids, $C_{26}H_{40}O_2$ and C26H12O2, in tunny oil, A., 1230.

Ueno, Y. See Asahina, Y.

Uerlings, H., effect of an electric field on intensity of the Tyndall light for different forms of colloidal particles, A., 1337.

Uffenorde, H., action of iodine-containing saline atmosphere on thyroid hyperplasia, .

Ufimtzev, V. N., laws of substitution in sulphonation of naphthaleno and its derivatives, A., 62. Structure and reactivity of the naphthalene nucleus. I. Orientation in the series of naphthalene and its derivatives, A., 1371.

Uga, Y., peroxidase reaction. LVI. Constancy of the Arakawa reaction in milk of a lactating woman during a year, A., 636. Detoxicating hormone of the liver. LVI. Effect of yakriton on blood-calcium, A., 645.

See also Takamatsu, A.

Ugami, S. See Nakahara, W.
Uglov, V. A., and Uglova-Ovchinnikova,
T. V., efficacy of filters containing silvered sand for disinfection of water. B., 46.

Uglova-Ovchinnikova, T. V. See Uglov,

Ugnjatschev, N. J., and Richter, D. A., rapid determination of trinitrophenol

in technical pieric acid, B., 584. Ugrümov, P. S., α- and β-amylase in ripening wheat grain, A., 110.

Uhara, I., spectroscopic studies of luminescence at cathode during electrolysis, A., 299. Calculation of normal potential of metals and Henry constant of ions, A., 799.

Uhde, F., hydrogenation of carbonaceous materials, (P.), B., 8.

and Gahl, R., reduction of metal-oxygen

compounds, (P.), B., 1101.

Uhland, W., and Schmidt, F., pulp-centrifuge in [potato-]starch manufacture, B., 294.

Uhlenbeck, G. E., and Beth, E., quantum theory of the non-ideal gas. I. Deviation of the control of t

ations from the classical theory, A., 1191. See also Knipp, J. K., Konopinski, E. J., and Wolfe, H. C.

Uhlenhroock, K., colorimetric and iodometric determination of glutathione, A., 96.

See also Wachholder, K.

Uhlenhuth, E., and Schwartzhach, S. S., physiology of the thyro-activator in amphibia. I. Acceleration of metamorphosis in the larvæ of salamanders, A., 645.

Uhlenhuth, P., and Remy, E., antibodies compared with carbohydrates. III. Experiments with a carbohydrate preparation prepared by degradation of gumarabic with respect to nitrogen, according to the method of Sevag, and with glycogen, A., 1010.

hot strength of cast iron, with special reference to thin castings, B., 104.

Vichanco, J. B., methylene-blue reduction test: its efficiency and interpretation under Philippine conditions, A., 97.

Ujhelyi, E. See Zechmeister, L. Ujsághy, P., inorganic phosphorus and sugar of cerebrospinal fluid, A., 361.

Ulffers, F. See Schering-Kahlbaum A.-G. Ulich, H., peculiarities of water and aqueous solutions, A., 667. Lecture experiment in combustion chemistry, A., 1225.

and Spiegel, G., amalgam concentration cells and electrodes of the second kind in non-aqueous solvents, A., 1206.

See also Schwarz, C.

Uljanov, P. N., drying and sterilising wood and other structural materials with infra-red rays, B., 546.

Ullmann, H., conductivity of the Bunsen flame measured with direct and alter-

nating current, A., 147.
Ullrich, B., and Steines, H. A., fireproof construction material [magnesium oxychloride cement], (P.), B., 410. Ullrich, W. See Texas Co.

Ulm, F. See Samec, M.

Ulm, R. See Gorbach, G.

Ulm, R. W. K. See Browning, B. L.
Ulman, K. Z. See Jakimov, P. A.
Ulmann, M., importance of Svedberg's ultracentrifuge for determination of mol. wt. of cellulose, A., 194. Determination of osmotic pressure by iso-thermal distillation using solvents of low b.p. (glucose penta-acctate-acctone), A., 969. Osmometric investigations of dilute solutions of polymeric carbohydrates. IX. Mol. size of technical cellulose acetate (cellite) in acctone, A., 971. and Hess, K., determination of the

osmotic pressure of cellulose derivatives by the membrane method, A., 972.

See also Hess, K.

Ulrey, D. L. See Westinghouse Electric & Manufg. Co.

Ulrich, F. See Běhounek, F. Ulrich, W. See Lockemann, G.

Ulrik, P., and Davidsen, D., changes in the laid egg, A., 508.

Ulsamer, J., thermal conductivity of air and other technically important gases, B., 815.

Ulzer, F., and Gruber, H., "acid wax" of human tubercle bacilli, A., 761.

Umblia, E., systematic separation of anions, A., 951.

Umbreit, S., metallurgical aspects of radiotube[-valve] industry, B., 64.

and Radio Corp. of America, getter material [aluminium-barium alloy], (P.), B., 283.

Umhreit, W. W., and Bond, V. S., analysis of plant tissue; application of a semi-micro-Kjeldahl method, B., 898. and Wilson, P. W., determination of

basic nitrogen; semi-micro-method applicable to plant tissues, A., 1434. Umeda, K., and Ono, Y., Flügge atomic

nucleus model, A., 1175.

Umemura, A. See Shikata, M. Umezawa, S. See Suginome, H.

Umhau, J. B., alums and aluminium sulphate, B., 738.

Umpleby, E. See Kearns, H. G. H. Umrath, K. See Soltys, A. Umstätter, H., structure mechanics of

viscous-elastic continua. I. Hydrodynamic theory of anomalous turbulence, A., 795.

Unckel, H., influence of inhomogeneity of the metal on the mechanism of flow in the Dick extrusion process, B., 1044. Material flow in the [metal-]rolling process, B., 1159. Underhill, S. W. F. See Barrie, M. M. O.,

and Rapson, G. N.

Underkoffer, L. A., butyl [alcohol]acetone fermentation of sugars with special reference to xylose, B., 424.

Christensen, L. M., and Fulmer, E. I., butyl-acetonic fermentation of xylose and other sugars, B., 712.

See also Fulmer, E.I.Underwood, A.J.V., fractional distillation and similar operations, (P.), B., 769.

Underwood, C. \hat{E} . See Sharples Specialty Co. Underwood, E. J., and Filmer, J. F., determination of the biologically potent element (cobalt) in limonite, A., 1140.

Underwood, H. W., jun., and Baril, O. L., catalysis in organic chemistry. Decompositions of esters and acids by anhydrous zinc chloride, A., 313. and Barker, G., diphenic acid series. V. [Dipheneins], A., 723.

Underwood, H. W., jun., Harris, L., and Barker, G., absorption spectra of dipheneins, A., 723.

and Walsh, W. L., catalytic oxidations in aqueous solution. III. Oxidation of anthracene, quinol, and substituted quinols, A., 728. Underwood, J. E. See Weitzel, C. F.

Ungar, Georg, mathematical representation of photographic blackening curves deduced from the congulation theory of latent images and using the fundamental hypothesis of Bose-Einstein statistics, A., 299. Statistical distri-bution of absorbed light quanta in the nuclei of a photographic layer, A., 774.

Ungar, Georges, and Parrot, J. L., callicrein in the saliva and its intervention during the chemical transmission of the nervous

influx, A., 1148.

Ungemach, H., advantages of employing four-index notation for crystals of rhombohedral symmetry, A., 15. The pair chalcostibite-emplectite, and the agreement between dimensions of unit cells and the crystallographic parameters, A., 186.

Unger, E. See Schopper, A. Unger, H. J. See Norris, W. V.

Ungewiss, A. See Albers-Schönberg, E. Ungley, C. C., liver principle active in pernicious anæmia, A., 504.

Davidson, L. S. P., and Wayne, E. J., treatment of pernicious anamia with Dakin and West's liver fraction (anahæmin), A., 504. and Moffett, R., Castle's intrinsic factor

in pernicious anaemia, A., 1141. Ungnade, H. E. See Lauer, W. M. "Unichem" Chemikalien-Handels Akt. Ges. Seo Friesenhahn, P.

Unifice Reagents, Ltd. See Samuel, J. O.Union Carbide & Carbon Research Laboratorics, Inc., Jones, L. T., Kennedy, H. E., and Rotermund, M. A., electric welding composition [flux], (P.), B., 506.

Union Oil Co. of California, separation from oil of wax or other matter which is precipitated on cooling the oil, (P.), B., 438.

and Bailey, J. R., organic nitrogen bases, (P.), B., 444.

and Page, A. G., distillation of oil, (P.), B., 1190.

See also Aldridge, B. G., Blount, A. L., Bray, U. B., Dillon, L., Fisher, H. F., Flaxman, M. T., Gard, E. W., Haylett, R. E., Hopper, B., Kingman, K., Mason, L. R., and Merrill, D. R. Union Paste Co. See Kelley, H. W. Union Products Co. See Seng, L. E.

Union Switch & Signals Co. See Dowling,

United Carhon Co., granules of carbon black, (P.), B., 135.

United Chemical & Organic Products, Ltd. See Bowman, J.

United Cotton Products Co., agglutinated fibrous sheet material, (P.), B., 57. Fibrous material, (P.), B., 689.

United Engineers & Constructors, Inc. See Chewning, W. L.

United Furnace Engineering Co., Inc. See Carruthers, E. H.

United Gas Improvement Co. See Fulweiler,

W. H., Hall, E. L., and Perry, J. A.
United Glass Bottle Manufacturers, Ltd.,
and Moorshead, T. C., circulation of glass in glass-furnace gathering-basins or forehearths, (P.), B., 21. United Shoe Machinery Corporation. See Johnson, J. W.

Galvanizing & Plating United States Equipment Corporation. See Potthoff, K. T.

U.S. Gypsum Co. See Darrah, W. A., Gustafson, J. G., King, G. D., Parsons, J. R., Roos, C. K., and Scholz, H. A.

U.S. Hydrogenation Corporation. McKee, R. H.

U.S. Industrial Alcohol Co., compositions [embrocation] for application to the human skin, (P.), B., 1235.
See also Metzger, F. J., Sherman, J. M.,

and Wysocki, J.

U.S. Ordnance Engineers, Inc. See Goss, B.C. U.S. Phosphoric Products Corporation. See Moore, G. F.

U.S. Pipe & Foundry Co. See Russell, N. F. S.

U.S. Process Corporation. See Heuser, H. U.S. Rubber Co., creaming of rubber latex, (P.), B., 753. Rubber-like 2-chloro-1:3-butadiene polymeride compositions, (P.), B., 1009. Blowing of sponge rubber, (P.), B., 1009. Microporous rubber, (P.), B., 1113.

and Coleman, C., vulcanisation of rubber, (P.), B., 803.

and McGavack, J., concentration of [rubber] latex, (P.), B., 381.

See also Barnard, A. E., Chittenden, F. D., Coleman, C., Gibbons, W. A., Hazell, E., Holm, B., Howland, L. H., Leaper, P. J., Linscott, C. E., McGavack, J., Madge, N. G., Messer, W. E., Meuser, L., Shinkle, S. D., Strickhouser, S. I., Tefft, R. F., and Tuley, W. F.

U.S. Rustless Steel & Iron Corporation, and Strauss, J., corrosion-resistant alloy steels and articles made therefrom, (P.), B., 503.

U.S. Shellac Importers' Association, Inc. See Gardner, W. H.

United Verde Copper Co. See Barker, L. M., Kuzell, C. R., and Ralston, O. C.

United Water Softeners, Ltd., water-softening apparatus of the base-exchange type, and filter, (P.), B., 80. Treatment of glauconite, (P.), B., 495. Treatment of water and aqueous solutions, (P.), B., 958. Treatment of base-exchange bodies. (P.), B., 1038. Ion-exchange materials, (P.), B., 1039.

United Wire Works (Birmingham), Ltd., and Lowndes, H., annealing or heattreating of metal or metal articles,

(P.), B., 1162.
Universal Alloys, Inc. See Grenagle, J. B. Universal Boiler Filter Corporation. See

Wemhoener, $E.\ E.$ Universal Insulation Co. See Keeth, J.

Universal Oil Products Co., refining of relatively low-boiling cracked hydrocarbons, (P.), B., 8. Treatment of olefine hydrocarbons, (P.), B., 8. Treatment of hydrocarbon oils, (P.), B., 180. Treatment of hydrocarbon

motor fuel, (P.), B., 681. and Alther, J. G., [radiant] heating of fluids, particularly hydrocarbon oils, (P.), B., 49. Treatment of hydrocarbon oils, (P.), B., 262, 358.

and Angell, C. H., treatment of hydrocarbon oils, (P.), B., 358. Conversion and coking of hydrocarbons, (P.), B., 534. Conversion of hydrocarbon oils,

(P.), B., 534. ad Barnes, J. B., treatment of petroleum, (P.), B., 1190.

Universal Oil Products Co., and Benedict, W. L., treatment of hydrocarbon oils, (P.), B., 86. Treatment of motor fuel, (P.), B., 681.

Benedict, W. L., and Wirth, C., refining of cracked hydrocarbon oil, (P.), B., 917. Refining of cracked hydro-

carbon distillates, (P.), B., 917. and Bergman, D. J., fractional distill-

ation, (P.), B., 359.

and Cook, R. C., hydrogenation of hydrocarbons, (P.), B., 261. and Davis, R. F., treatment of hydro-

carbon oils, (P.), B., 821.

and Day, R. B., elimination of impurities

from gasoline, (P.), B., 730. and De Rachat, N. G., reclamation of

filtering clay, (P.), B., 528. and Dubbs, C. P., treatment [cracking] of hydrocarbons, (P.), B., 262. Treatment of petroleum oil, (P.), B., 262. Treatment of hydrocarbon oils, (P.), B., 358, 535. Treatment of hydrocarbons, (P.), B., 682. Conversion of higher-into lower-boiling oils, (P.), B., 682. Cracking of hydrocarbon oil, (P.), B., 917.

and Egloff, G., cracking normally incondensable hydrocarbon gases, (P.), B., 260. Treatment of hydrocarbon oils, (P.), B., 357, 778. Treatment of cracked hydrocarbon vapours, (P.), B., 680. Cracking of [hydrocarbon] oil, (P.), B., 682. Hydrocarbons, (P.), B., 869.

Egloff, G., and Morrell, J. C., treatment [desulphurising] of hydrocarbon oils, (P.), B., 485. Treatment of hydrocarbon oils, (P.), B., 777.

Egloff, G., and Schaad, R. E., nitrogen bases for use as antiknock compounds,

(P.), B., 265.

and Fisher, Alfred, treatment of hydrocarbon oils and bituminous materials, (P.), B., 730.

and Heid, J. B., hydrocarbon oil conversion, (P.), B., 9, 359, 534. Cracking of hydrocarbon oils, (P.), B., 262, 359.

and Huff, L. C., treatment of hydrocarbon distillates, (P.), B., 9. Treatment of hydrocarbon oils, (P.), B.,

and Ipatiev, V. N., treatment of [olefinic] hydrocarbons, (P.), B., 438. Treatment of motor fuel, (P.), B., 486. Treatment [alkylation] of hydrocarbon oil, (P.), B., 630. Treatment of hydrocarbons, (P.), B., 681, 777. Treatment of hydrocarbon oils, (P.), B., 730, 917. Hydrocarbons, (P.), B., 868. Catalysts [for polymerisation of unsaturated hydrocarbons], (P.), B., 1092.

Ipatiev, V. N., and Grosse, A. V., synthesis of hydrocarbons, (P.), B.,

and Lowry, C. D., jun., treatment of asphalt, (P.), B., 777. Treatment of motor fuel, (P.), B., 917.

Luton, C. W., and Beddow, J., hydrocarbon oil conversion, (P.), B.,

and Mattox, W. J., resin [from alkylol-

amines], (P.), B., 752. and Mekler, L. A., heating apparatus [for hydrocarbon oils], (P.), B., 681. Treatment of hydrocarbons, (P.), B., 682. Coking of hydrocarbon oils, (P.), B., 1190.

Universal Oil Products Co., and Morgan, B. W., conversion of hydrocarbon oils, (P.), B., 682.

and Morrell, J. C., sweetening of hydrocarbon distillates, (P.), B., 9. Asphalt, (P.), B., 262. Treatment of hydrocarbons [tar acids], (P.), B., 309. Conversion of hydrocarbon oils, (P.), B., 359, 535. Treatment of [cracked] hydrocarbon oils, (P.), B., 680. Treatment of motor fuel, (P.), B., 778. Treatment of hydrocarbon oils, (P.), B., 917.

Morrell, J. C., and Angell, C. H., treatment of hydrocarbon oils, (P.),

Morrell, J. C., and Dryer, C. G., treatment of motor fuel, (P.), B., 261,

and Nelson, E. F., conversion of hydrocarbon oils, (P.), B., 262, 359, 534.

and Olsen, N. S., treatment of hydrocarbon oils, (P.), B., 821.

Otto, A. H. J., and Holst, J. F. van, corrosion prevention [for steel oil-distillation vessels], (P.), B., 8.

and Pyzel, F. M., oil-cracking apparatus, (P.), B., 262.

and Pyzel, R., conversion of hydrocarbon oils, (P.), B., 359.

and Seguy, J. D., treatment of hydrocarbon oils, (P.), B., 262. Conversion or cracking of high-boiling hydrocarbon oils into low-boiling hydrocarbon oils, (P.), B., 262. Coking of hydrocarbon oils, (P.), B., 534. Treatment of hydrocarbons, (P.), B.,

and Skowronski, F. J., asphalt, (P.), B., 309. and Sumpter, M. C., treatment of

hydrocarbon oils, (P.), B., 86.

and Weber, H. C., treatment of hydrocarbon oils, (P.), B., 629.

and Wood, A. M., cracking process [for

hydrocarbon oils], (P.), B., 682. University Patents, Inc., process and machine for crushing and mixing, (P.), B., 815.

Unna, K., and Walterskirchen, L., relation between excretion of chloride and that of water after injection of pituitrin, A., 1157.

Uno, Y., and Ishida, M., asphalt. I. Improved ring-and-ball method for determination of softening points of asphalts. II. Softening point and penetration of mixtures of two or three kinds of asphalt. III. An asphalt [-rubber] compound, B., 177, 581.

Uno, Yonikichi, cotton waste as material for rayon manufacture, B., 230.

Untersteiner, L. See Agnoli, R. Unverdorben, O. See Wimmer, G.

Unyte Corporation. See Eisenmann, K., Ellis, C., Luther, M., and Menger, A.

Uota, H. See Nishida, Kitsujt.
Uppal, H. L. See Dhingra, D. R.
Upson, F. W., Fluevog, E. A., and Albert,
W. D., solubility of several com-

pounds of mannose series in alcohols, A., 25.

Upton, H. E. See Serck Radiators, Ltd.

Urakami, Y. See Kamei, S.

Urano, N. See Shikata, M. Urazov, G. G., and Nisharadze, I. P., special silumins, B., 745.

and Zamoruev, G. M., physicochemical nature and properties of alloys of the type of lautal, B., 745.

Urazovski, S. S., and Rozum, J. S., formation and growth of a new phase in relation to the influence of vectoral properties of a substance, and of external factors. IV. Influence of solvent and of admixtures on the form of the crystals separating. V. Influence of an electric field on the linear velocity of crystallisation in supercooled liquids, A., 1063. and Vseljubski, S. B., explosiveness of

tar and oil mists in the coke industry,

B., 401.

Urbach, C., photometric methods for examination of milk and dairy products, B., 216.

Urbain. See Armand-Delille, P. Urbain, A., and Cahen, R., content of nitrogenous degradation products in the scrum of ungulates, A., 1283. Protein content of the scrum of ungulates, A., 1400.

Cahen, R., and Pasquier, M. A., reduced glutathione in the blood of ungulates,

A., 1283.

Urbain, G., general theory of molecular

co-ordination, A., 925.

Urbain, O. M., and Lewis, C. H., water purification, (P.), B., 46. Producing lactic acid [from lactose], (P.), B., 759.
Stemen, W. R., and Lewis, C. H.,
purification of potable and polluted
waters, (P.), B., 718.

Urbain, P., and Wada, M., quantitative spectrography of alkali metals, A., 443. Urbain, \vec{W} . \vec{M} ., and Jensen, L. B., soaps: electric charge effects and dispersing

action, B., 1053. See also Jensen, L. B.

Urban, A. See Retovsky, R. Urban, F. See White, H. L. Urban, F. F., chemical constitution of

liver-proteins, A., 500.

Urban, H. See Faerber, E. Urban, M. See Metzger, H. Urbański, T., and Kolodziejczyk, S., thermal analysis of mixtures containing ammonium, sodium, potassium, and calcium nitrates, A., 937.

and Slon, M., nitration of normal

parassins, A., 1485.
Urbański, W. S., appearance of some emulsions, A., 1460.

Urbányi, L., colorimetric determination of iron, A., 444. Composition of lucerne hay and feeding of lucerne meal, B., 217. See also Marek, J.

Urechia, C. I., Benetato, G., and Retezeanu, effect of adrenalectomy on blood-chloride and sodium, A., 497. Potassium in adrenal deficiency, A., 1563.

and Retezeanu, blood-bromine, A., 497. Urey, H. C., and Aten, A. H. W., jun., chemical differences between nitrogen

isotopes, A., 1312. Aten, A. H. W., jun., and Keston, A. S., concentration of the carbon isotope, A., 1350.

Pegram, G. B., and Huffman, J. R., concentration of the oxygen isotopes, A., 1350.

See also MacWood, G. E.

Urieva, F. E. See Sklianskaja, R. M. Urinson, R. P. See Saposhnikova, E. V.Urry, W. D., determination of radium

content of rocks, A., 303. Determination of thorium content of rocks, A., 304.

See also Harnwell, G. P. Ursu, A. See Zaharescu-Karaman, N. Ursu, I. See Zaharescu-Karaman, N. Urushibara, Y., and Ando, T., formation of cholestane-3:6-dione from cholestenone dibromide and from 4- and

△⁵-cholestenone, A., 1110.

and Takebayashi, M., electrolytic dissociation of aayy-tetracyanopropene and aayy-tetracyano-β-methylpropenc,

A., 1465.

Usanovitsch, M., S-shaped viscosity curves, A., 22. Nature of conductivity of non-aqueous solutions, A., 161. Diagrams representing physicochemical analyses of irrational systems, A., 681. Nature of electrolytes in non-aqueous solutions, A., 1065. Chemical theory of electrolytes, A., 1203. [with Kozmina, G., and Tartakovskaja,

V.], conductivity and viscosity in the system sulphuric acid-nitrobenzene,

[with Naumova, A. I.], conductivity and viscosity in the system sulphuric acid-acetic acid, A., 22. [with Tenenbaum, A.], conductivity and

viscosity in the system nitrobenzene-

viscosity in the system merochische acetic acid, A., 22.

Usatschev, N. See Obshurin, A.

Uschakov, M. I., and Livschitz, S. S., preparation of butyl alcohol from byproducts formed in synthesis of the system of the products by the method of S. V. butadiene by the method of S. V. Lebedev, B., 10. Tschistov, V. O., and Schlosberg, M. A.,

salt-forming properties of halogens; reaction of univalent positive halogen compounds with unsaturated hydro-

carbons, A., 466.

Uschakova, A. A. See Siskov, K. I., and Stadnikov, G. L.

Usher, S. J., MacDermot, P. N., and Lozinski, E., prophylaxis of simple anæmia in infancy with iron and copper; effect on hæmoglobin, weight, and resistance to infection, A., 363.

Usines de Melle, dehydration of alcohol by the gypsum process, B., 214. Esters from alcohols, (P.), B., 359.

and Boinot, F., alcoholic fermentation,

(P.), B., 1228. and Guinot, H. M., separation of acetic anhydride from mixtures containing it, (P.), B., 138.

Usjukin, I. P. See Geliperin, N. I.
Uskova, L. S. See Schattenstein, A. I.
Uspenskaja, V. N. See Kroenig, W. O.
Uspenski, S. P., oil deposits in the Lena

river basin and its tributaries (Siberia); organic substance of the minerals from the river Tolba, A., 450.

Uspenski, V. P., preparation of glasses of equal coefficients of expansion, B., 59.

See also Juferev, V. F. Ussing, H. See Fenger-Eriksen, K.

Ust-Katschkintzev, V. F., criticism of certain researches on physicochemical analysis of binary systems, A., 22.

and Mertzlin, R. V., homogenising properties of binary liquid mixtures. I. Water—aniline—pyridine—piperidine. II. Water - aniline - pyridine - acetic acid. III. Water-aniline-piperidine-acetic acid. IV. Water-dimethylaniline-piperidine - allylthiocarbimide, A., 932.

See also Mertzlin, R. V., and Trifonov, N. A.

Ustjanov, V., Krupski, P., and Speranski, V., ensilage of straw does not increase its value, B., 393.

Usuelli, F., biological effects of feeding with the milk of cows in œstrus, A., 361.

Usui, R., Miwa, T., and Aoki, K., relation between creatine metabolism and the function of the sex glands, A., 644.

Usuki, K., influence of diet on formation hepatic and renal calculi. IV. Histological study of liver, gall-bladder, and kidneys. V. Changes of $p_{\rm H}$ and the buffer action of the bile, A., 1536. Utagawa, I., and Kuraishi, T., effect of

drought on available nitrogen of paddy

soil, B., 658.

Utescher, K. See Abel, A.

Utevski, A., intermediate metabolism and oxidation processes. I. Co-enzyme and intermediate carbohydrate metabolism,

Utida, M., imbibition of organic solvents by Yamagata imbibing clay, A., 28. Imbibition of electrolyto solution by Yamagata imbibing clay, A., 28.

Utility Development Co. See Heller, J. K. Utkin, L., peptic hydrolysis of caseinogen,

Utsch, W., mixtures of blast-furnace slag with ammonium salts [as fertilisers], B., 898.

Utschastkina, S. V., and Matveev, V. J., surface changes of paper during printing, B., 186. Production of bleached halfstuff from mulberry bark, B., 925.

Utsunomiya, T., commercial protective agents against ageing of rubber; preparation of sponge rubber for filtration, B., 511.

Utterback, C. L., and Wirth, H., ultramicrometer, A., 306.

Uyeno, K., iron sand. I. Manufacture of vanadium steel from Hisagi sponge iron, B., 323.

Uyterhoeven, W., and Verburg, C., temperature of electrons (T_e) in the positive column of a discharge in a mixture (No-Na), A., 771.

Uzel, R., and Ježek, B., volumetric determination of cobalticyanide ion, A., 444.

See also Feigl, F.

٧.

Vacca, C., vitamin- B_1 in grapes and grapo products, A., 119.

See also Carteni, A., and Laporta, M. Vaccaro, P. F., [biological] synthesis of hippuric acid, A., 752.

Vachet, P., aluminium-magnesium alloys,

B., 457.

Vad, G. M. See Meldrum, A. N.

Vadász, E., geological age of bauxite and manganese ore formation in Dunántul (Hungary), A., 585. Vadasz, L. See Funke, K. Vadova, V. A. See Sadikov, V. S.

Väyrynen, H., mineral paragenesis of gravel ores in Outokumpu and Polvijärvi districts, A., 1227.

Vageler, P., East African soil types, B., 466. Vagramian, A. T., and Sarkisov, E. S., formation of striated cathode deposits of copper, B., 698.

Vagranskaja, L. I. See Kireev, V. A.

Vague, J. See Olmer, D.

Vahidy, T. A., and Pandya, K. C., condensation of aldehydes with malonie acid in presence of organic bases. IV. Piperonal, A., 203.

See also Pandya, K. C.

Vahlteich, E. McC., Rose, M. S., and MacLeod, G., effect of digestibility on availability of iron in whole wheat, A., 1543.

See also Funnell, E. H.

Vahlteich, H. W., Schille, J. L., and Best Foods, Inc., storage of eggs, (P.), B., 74. Vaidya, M. See Lüers, H. Vaidya, W. M., flame spectra of some

aromatic compounds, A., 135.

Vaidyanathan, R. See May, A. N. Vaidyanathan, V. I., optical lever siltometer, B., 513.

and Luthra, H. L., transmission co-efficient of water in natural silts, B., 513.

Vail, J. G., rôle of silica-soluble silicate cleansers, B., 700.

Vail, W. E. See Du Pont de Nemours & Co., E. I.

Vailati, R. See Butturini, L.

Vaillant, E., yield in cheese manufacture, B., 665.

Vaille, C. Scc Paisseau, C.
Vaille, (Mlle.) R. Scc Trillat, J. J.
Vainer, J. V. Scc Kheifetz, V. L.
Vainstein, G. M., high-percentage ferrosilicon, B., 994.

See also Sacharuk, S. A.

Vaishnav, S. A. See Naik, K. G. Vaisman, A. See Levaditi, C. Vajifdar, M. B. See Majumdar, V. D.

Valaer, P., and Frazier, W. H., changes in whisky stored for four years, B., 295.

See also Mallory, G. E.

Valby, E. P., and Arnold, M. L., continuous determination of vapour pressure, (P.), B., 257.

Valdecasas, F. G. Sec Mertens, O.

Valdman, A., and Kljatschko-Gurvitsch. L. L., solubility of cobaltous nitrate in aqueous nitric acid, and the transition point of Co(NO₃)₂,6H₂O to Co(NO₃)₂,3H₂O, A., 25.

Valečka, K. See Glazunov, A.

Valenkof, N., and Porai-Koschitz, E., X-ray investigation of the glassy state, A., 413.

Valensi, G., kinetics of oxidation of spherules and metallic powders, A., 434 Causes of anomaly in kinetics of oxidation of metallic powders, A., 685. Experimental methods for the kinetic study of the oxidation of metals, A., 1085.

See also Mehmet, R. Valenta, E., and Koselev, V., new methods for surface-hardening of austenitic steels, B., 1156.

Valente, F. See Monti, (Signa.) L. Valentin, F., $\alpha\delta$ -[$\gamma\zeta$ -]anhydromannitol, A.,

Valentin, H., and Franck, R., chromatographic adsorption analysis in pharmacy; determination of cantharidin in tincture of cantharides. II., B., 1068.

Valentine, E., bactericidal power of dried painted surfaces. I., B., 1216.
Valentine, F. C. O., rôle of the toxin in

staphylococcal infection, A., 623.

Valentine, I. R. See Gen. Electric Co. Valentiner, S., nickel-manganese system. II., A., 152.

Valette, G., fixation of quinine by Paramecia as determined by its fluorescence, A., Comparative action sodium oleate and ricinoleate on lecithin, A., 891.

and Salvanet, R., purgative constituent of castor oil, A., 891. Intestinal absorption of castor oil, A., 1019.

Valette, (Mlle.) S. Sco Charriou, A. Valiaschko, M. G. See Bujalov, N. I. Valiaschko, N. A., and Schtscherbak, M. M., m.p. of resorcinol, A., 200.

Valikov, S. J. See Schapiro, E. S. Valin, J., Moroccan olive oils, B., 284.

Valla, S., physiology of lipins and sterols under complete and protein inanition,

Vallance, J. M., continuous soap manufacture: Löffl process, B., 334. Improving toilet soaps, B., 846.

Vallarta, M. S., longitude effect of cosmic radiation, A., 1315.

See also Lemaitre, G.

Valle, G., and Rossi, B., neon lamps in counter circuits. I. Limits of region of photo-electric sensitivity, A., 128.

Vallée, J., oriented adsorption and capillaryactive surfaces; their rôle in the textile industry, B., 880.

Vallega, J., and Fresa, R., action of low concentrations of sodium arsenite as a weed killer, B., 387.

Vallery, P. L. L., and Rosello. J. F. P., apparatus for testing gases by chemical means, (P.), B., 353.

Vallet, P., linear rise in temperature of resistance furnaces and the recording, as a function of time, of the mass and the temperature of a substance subjected to progressive heating, B., 506.

Vallette, A. See Bezssonoff, N.

Vallette, F., hydrogenation of coal, B., 965. Valley Forge Cement Co. See Breerwood,

Vallez Rotary Filters Co. See Chapman. W. L.

Valsö, J., hormone content of the pituitary of the blue whale (Balaenoptera Sibbaldii). III. Growth hormone, A., 1301.

Valvoline Oil Co. See Miller, C. A. Vana, C. A. See Grasselli Chem. Co. Van Ackeren, J. See Koppers Co. of

Vanadium-Alloys Steel Co. Sce McKenna, P. M.

Van Arendonk, A. M. See Lee, H. M. Van Arsdel, W. B., theory of pulp washers. I. II. Practical washers, B., 364, 538.

Van Campen, J. H. See Connor, R.Vance, J. E. See Foote, H. W.

Vancea, M. See Spacu, G. Vancea, P. See Manta, I.

Van Cleave, A. B., and Maass, O., viscosities of deuterium-hydrogen mixtures, A., 419.

Van Dam, L., utilisation of oxygen by Mya arenaria, A., 368. Determination of oxygen dissolved in 1 c.c. of water, B., 254.

Vandecaveye, S. C., Horner, G. M., and Keaton, C. M., unproductiveness of certain orchard soils as related to lead arsenate spray accumulations, B., 1223.

Vandegrift, \hat{J} . \tilde{N} ., Postel, C., and Internat. Bitumenoil Corp., retort, (P.), B., 436. Vandenberg, G. B. See Murphy, D. F.

Vandendriessche, A., pitchblende from the new uranium bed at Kalongwe [Belgian Congo], A., 184. Rock-forming minerals from Belgian Congo, A., 449.

Vanderbilt, B. M., Adler, H., and Victor Chem. Works, anhydrous alkali hyposulphites [thiosulphates], (P.), B., 592

Gottlieb, H. B., and Victor Chem. Works, phosphoric esters of aliphatic alcohols, (P.), B., 633. See also Hass, H. B.

Vanderbilt Co., Inc., R. T., filling or coating compositions for paper and textiles, (P.), B., 96. Preparation of filling or coating materials for paper, etc., (P.), B., 786.

and Murrill, P. I., vulcanisation of rubber. (P.), B., 208.

See also Alton, W. H., Champion, C. H., Edland, L. A., and Larson, L. H. Vanderburg, W. O., use of ultra-violet

lamps in mines for rapid detection of scheelite in ores by fluorescence, B., 278.

Vandercook, A. E., and Nat. Mining & Reduction Co., metal separation; [treatment of gold ores], (P.), B., 416.

Van der Cook, R. E., Sweetland, E., and Pennsylvania Salt Manufg. Co., purification of concentrated caustic soda solutions, (P.), B., 592.

Vanderwaeren, J. Sce Decoux, L.

Van der Werth, treatment of cellulose waste liquors, B., 1085.

Vandevelde, A., generation of heat by combustion of solid fuel, (P.), B., 1184.

Vandewijer, J., refractivity of a-chloronitriles, A., 1051.

Vandoni, M., evolution of nitrous oxide in decomposition of nitrocelluloses, B., 764. Vandoni, R., decomposition of nitrocellulose

with liberation of nitrous oxide, B., 14. See also Desmaroux, J.

Van Dyke, H. B. See Chen, G. Van Dyke, R. H. See Eastman Kodak Co. Vanet, P. See Brandenberger, J. E.

Vangheloviei, M., proposed synthesis of equilenin, A., 1382. and Vasiliu, G., introduction of nitrogen

into sterol molecules, A., 982.

Van Hauwaert, M., determination of the activity of pharmaceutical amylases, B., 762.

Van Heuckeroth, A. W., adhesion of exposed plasticised lacquers, B., 607. Physical properties of oil films. II. Elasticity, B., 1165. Plasticisers, B., 651. New lacquer materials: organic silicon compounds; oiticica products; exterior exposure tests on some plasticisers, B., 1056.

Van Horn, A. L. See Gerstenberger, H. J. Van Horn, C. W. See Finch, A. H.

Vanicek, V. See Bondy, H. Vanick, J. S. See Fraser, O. B. J., and Merica, P. D.

Van Impe, F., centrifugal dryers, (P.), B., 912. Vanin, I. I., and Tschernojarova, A. A., transposition of the double linking in Δ^{ϵ} - and Δ^{ϵ} -oleio acids, A., 705.

Vaniukov, V. A., Murach, N. N., and Markarov, G. K., tin from Chaptscheranginsk and Scherlovogorsk concentrates (East Siberia), B., 198.

Van Meter, J. W., and Fetters, G. E., insecticidal and fungicidal agent and

method [of preparation], (P.), B., 1013. Vanossi, R., and Ferramola, R., use of eerie salts in micro-determination of glucose, A., 968.

Van Raalte, L. H. See Sehnitker, M. T. Van Rest, E. D. See Bamford, K. F.

Van Schaak Brothers Chemical Works, Inc. See Lacy, K. B., and Young, H. D. Vanscheidt, A., Itenberg, A., and Andreeva,

T., constitution of phenol-aldehyde resins. VI. Fractionation of phenolnovolaks, B., 1108.

Itenberg, A., and Balandina, V., constitution of phenol-aldehyde resins. V. Condensation of p-benzylphenol with formaldehyde, B., 1217.

Vanselow, A. P., spectrographic microdetermination of zine, A., 1352,

and Laurance, B. M., spectrographic micro-determination of zinc [in plant material], A., 1308. Vanselow, W. See Eastman Kodak Co.

Vanshylla, A. S. Seo Puri, A. N.

Van Slyke, D. D., Hiller, A., and Miller, B. F., elearance, extraction percentage, and estimated filtration of sodium ferrocyanide in the mammalian kidney: comparison with inulin, creatinine, and urea, A., 513. Distribution of ferrocyanide, inulin, creatinine, and urea in blood: effect on significance of their extraction percentages, A., 513.

See also Miller, B. F., and Page, I. H.
Vanterpool, T. C., browning root rot of cereals. III. Phosphorus-nitrogen relations of infested fields. IV. Effects fertiliser amendments. V. Preliminary plant analyses, B., 71. Vantu, G. G. See Nenitzescu, C. D.

Vantu, V. See Ramart-Lucas, (Mme.) P. Van Tuyl, F. M., and Parker, B. H., extra-terrestrial hydrocarbons and

petroleum genesis, A., 701.

Van Vleck, J. H., valency strength and magnetism of complex salts, A., 141. Group relation between the Mulliken and Slater-Pauling theories of valency, A., 141. Non-orthogonality and ferro-magnetism, A., 415. Isotope corrections in molecular spectra, A., 918.

Van Wagenen, A., and Wilgus, H. S., jun., determination and importance of the condition of the firm albumin in studies

of egg-white quality, B., 520.

Van Winkle, C. C. See Duncan, G. R. Van Zandt, G. See De Milt, C. Vanzant, F. R. See Alvarez, W. C.

Vanzetti, B. L., and Oliverio, A., decomposition of alkalino-carth carbonates in aqueous solution on boiling, A., 1471. Vanzetti, G. See Sirovich, G.

Varadachar, K. S. See Newcomb, C. Varadachari, P. S., diamagnetism and

change of state, A., 277.
and Subramaniam, K. C., magnetic studies of sulphur and some sulphur compounds, A., 928.

Varay, A. See Loeder, M.

Varentzov, V. P. Sce Velikovski, D. S.

Varga, G. See Chrétien, A.

Varga, J., pressure hydrogenation of tar and oil products, B., 50. Highpressure hydrogenation of naphthalene,

B., 50.
and Makray, I., action of hydrogen sulphide and hydrogen selenido on the hydrogenation of naphthalene, m-cresol, and tar oil, B., 483.

Vargas, V., kola nut cultivated in Brazil, B., 219.

Vargha, L. von, glucose 5-methyl ether, A.,

Varley, J. C., phenol coefficient as measure of practical value of disinfectants, B., 254.

Varley, P. C. See Gwyer, A. G. C. Varma, B. S. See Krishna, S.

Varma, P. S., Godbole, N. N., and Garde, G. M., modified apparatus for determination of the hexabromide value of oils and fats in tropical countries, B., 107.

Godbole, N. N., and Srivastava, P. D., seed oil of Psidium guyava, var. pyriferum, from India. I., B., 284.

Varma, P. S., and Shankarnarayan, S., halogenation. XIII. Bromination and iodination of some halogenated benzenes, A., 599.

and Sreenivasmurthyachar, C., halogenation. XIV. Iodination of aromatic hydrocarbons and bromotoluenes, A., 832.

and Srinivasan, M. K., halogenation. XV. Chlorination and bromination of cumene and p-cymene, A., 832.

and Subrahmanian, T. S., halogenation. XVI. Bromination and iodination of mesitylene, A., 832.

Varney, G., refrigeration, (P.), B., 672.
Varney, P. L., glass electrodes, A., 46.
Varney, R. N., ionisation of gases by collisions of their own accelerated atoms, A., 1041. and Cole, W. C., ionisation of mercury

vapour by positive sodium ions, A., 1171. and Loeb, L. B., photo-ionisation in

gases, A., 129.

White, II. J., Loeb, L. B., and Posin, D. Q., rôle of space charge in study of the Townsend ionisation coefficients and the mechanism of static spark breakdown, A., 129.

Varney, W. W. See Grenagle, J. B. Varov, A. A., lithology of precipitation of "domanic" shales from the upper Devonian of the western slope of the Ural mountains, A., 309.

Vars, II. M. See Pfiffner, J. J.

Varteressian, K. A., and Fenske, M. R., liquid-liquid extraction; performance of a packed column, using continuous countercurrent operation, B., 1071.

Vartic, V. See Balanesco, I. V. Varvoglis, G. A. See Zaganiaris, J. N.
Vassatjerna, J. A., elastic constants of alkali hulides, A., 1188.

Vasatko, J., and Kasjanov, V., invert sugar content of beet juice and the lime dose, B., 1172.

See also Dedek, J.

Vascauteanu, E. See Ornstein, I.

Vaschedtsehenko, T. V. See Schemjakin,

Vasel, G. A., fundamentals of three-roll grinding, B., 671.

Vašičok, A., electro-osmotic measurements, A., 1224.

Vasilesco, C. See Damboviceanu, A. Vasilesco, V. V., Bloschtein, F. I., and Kustrja, B. D., influence of structure on the explosive properties of organic compounds, A., 670.

Vasiliev. See under Vassiliev. Vasiliu, C. See Baltaceano, G. Vasiliu, G. See Vanghelovici, M. Vasiljeeva, O. See Panjutin, P. Vasneva, K. I. See Kireev, V. A. Vass, P. See Kocsis, E. A.

Vasseur, H. F. See Lister & Co., Ltd.,

Vassiliades, C., action of aliphatic secondary bases on halogen derivatives of amines, A., 464.

Vassiliev, A. A., determination of fluorine. I., A., 811. Determination of fluorine in presence of beryllium, A., 950.

and Martianov, N. N., determination of solubility of the complex K2SiF8 under various conditions, A., 25. Determination of fluorine in soluble and insoluble fluorides by its separation as K₂SiF₆ and subsequent titration of the complex, A., 41. Solubility of potassium silicofluoride, A. 560.

Vassiliev, A. A. See also Lebedev, S. V. Vassiliev. A. M., separation of lead as sulphate, A., 179. Halides of boron, and their m.p., A., 574. Two cutectic cycles with diphenyl, A., 1060.

and Pianova, N. I., influence of heat and of the presence of various cations on oxalic acid solutions, A., 314.

and Tschmuir-Korsunska, O. S., washing strontium sulphate precipitate with its saturated solution, A., 177.

and Vassilieva, L. A., gravimetric determination of calcium and magnesium, A., 178.

Vassiliev, A. S., colour reaction for nitric acid, A., 578.

assiliev, B. B., industrial applications of liquid ammonia, B., 883.

Vassiliev, G. M., offect of zinc on the metabolism of Aspergillus niger, A., 1153.

Vassiliev, I. M., and Vassiliev, M. G., changes in carbohydrate content of wheat plants during the process of hardening for drought-resistance, A., 1433.

Vassiliev, K. V. See Vesselovski, V. S. Vassiliev, M. G. See Vassiliev, I. M.

Vassiliev, P., and Deschalit, N., peptisation of colloids by electrolytes. I. Reversion of coagulation with formation of insoluble salts, A., 1461.

Gatovskaja, T., and Rabinovitsch, A., activity of ions in colloidal solutions. I. Suspension effect in the ultrafiltration of positive colloids, A., 1461.

See also Gatovskaja, T.

Vassiliev, P. S. See Rabinovitsch, A. J. Vassiliev, S. S., counter for a-particles, A.,

Kaschtanov, L. I., and Kastorskaja, T. L., kinetics of the oxidation of solutions of sulphurous acid, A.,

Kobosev, N. I., and Erjemin, E. N., reaction kinetics in electric discharges, A., 1473.

See also Kebosev, N. I.

Vassilieva, L. A., precipitation of barium sulphate in presence of hydrochloric and nitric acids, in the cold, A.,

See also Vassiliev, A. M.

Vassilieva, V. G. See Klebanski, A. L.

Vassy, E., influence of temperature on the absorption spectrum of ozone, A., 774. Spectrographic method of studying thermal decomposition of ozone, A., 1208.

See also Barbier, D., and Tournaire,

(Mile.) A.
Vaubel, R. See Strohecker, R.
Vaudroz, M., gold baths with fulminating gold, B., 551.

Vaughan, A. J., devices for separating liquids of different [specific] gravity, (P.), B., 912.

Vaughan, A. L., Williams, J. II., and Tate, J. T., isotopic abundance ratios of carbon, nitrogen, argon, neon, and helium, A., 400.

Vaughan, J. A., creosote plus phosphatide for production of non-bleeding creosoted

pine poles, B., 62. Vaughan, T. W., oceanographic research at the Scripps Institute of Oceanography, A., 584.

Vanghan, W. E. See Kistiakowski, G. B. Vanghn, R. See Levine, M.

Vaupel, O., extent of scattering in [examining metals by transmitted X-rays, B., 105.

See also Heike, W., and Schramm, J.

Vautier, L. See Soc. Franc. de la Viscose. Vavilov, S. I., fluorescence intensity and duration, A., 1446.

and Sevtsch, A. N., quenching of fluorescence due to solution medium,

A., 1445.

Vavon, G., and Bourgeois, L., reactivity and structure of primary aromatic amines, A., 836. Reactivity and structure of the primary aliphatic amines, A., 972.

Vavra, R., hamolysis produced by small variations in $p_{\rm H}$, A., 1531. Influence of the plasma on the hamolysis produced by small variations in $p_{\rm H}$, A., 1531.

Vavrinecz, G., halloysite and dolomite of Mártonhegy (Martinsberg), Budapest,

A., 1483.

See also Rosenblüh-Roboz, E.

Vázquez, A., Alvarez, V. G., and Mathet, E., determination of bilirubin in blood, A., 745.

Vazquez, E. A., recovery of sugar and salts from sugar-cane molasses, (P.), B.,

Vazquez Sanchez, J., application of the indophenine test to detection of polycarboxylic acids, A., 190. Detection of acetic acid by formation of acetaldehyde, A., 965. Application of the indophenol reaction to the detection of certain organic polyacids, A.,

See also Gangl, J.

Vazsonyi-Zilahy, A. See Erdey-Gruz, T. Vdovenko, V., and Samoilovich, adsorption of radium ions on glass, and Guy's theory, A., 1457. See also Schukarev, S. A.

Vdoviszevski, H., determination of lead and antimony in pure metals and their alloys, A., 443.

Veazie, E. A. See Standard Telephones & Cables.

Vébra, J. See Brus, G.

Vecchi, A., feeding poultry with mineral substances, B., 394.

Vecchiotti, L., and Ajuto, (Signa.) A., behaviour of o-toluidine with mercuric acetate, A., 90. Vechotko, T. I. See Platkovskaja, V. M.,

and Schtakelberg, I. I.

Vedder, E. H., and Evans, M. S., photoelectric control of resistance-type metal heaters, B., 410.

Vedeneeva, N., and Grum-Grshimailo, S., spectro-pleochroism-meter and investigation of mineral dichroism, A., 1480

Grum-Grshimailo, S., and Volkov, A., microscopical determination of indices of refraction of resinous substances and minerals of high refringence, A., 581.

Vedrov, N. S., eczema in nickel platers, A., 1540.

and Dolgov, A. P., pathogenesis of oil acne, A., 1538.

Veen, A. G. van, vitamin-B groups, A., 764.

See also Spruyt, J. P.

Veen, D. van der, artificial disintegration. II. and III., A., 6, 132. See also Backer, H. J.

Veen, J. H. van der. See Ornstein, L. S. Veenemans, C. F. See De Boer, J. H.

Vega Manufacturing Corporation. See Ruben, S.

Vegard, L., crystal structure of solid oxygen, A., 273. Influence of van der Waals forces on energy states of molecules on basis of luminescence of solidified gases, A., 1049.

and Tonsberg, E., enhancement of red lines and bands in the auroral spectrum from a sunlit atmosphere, A., 770.

Vegesaek, A. von, elimination of the effect of sheet thickness in the Erichsen test, B., 201. Can the influence of sheet thickness be eliminated in the Erichsen deep-drawing test? B., 551. Alteration of steel during hardening, tempering, and annealing, B., 888. Véghelyi, P. See Surányi, J.

Veibel, S., enzymic synthesis of alkyl-

glucosides, A., 1297.
and Eriksen, F., synthesis and properties of β-alkylglucosides, A., 318. Action of emulsin. III. Sources of error in polarimetric examination of

enzymic hydrolysis of β -glucosides, A., 520. Influence of the aglucone on the rate of hydrolysis of β-glucosides by emulsin, A., 1297.

and Neilsen, E., non-hydrolysable β -glucoside, A., 1235.

Veiel, U., magnetic susceptibilities of alkali and alkaline earth halides, A., 148.

Veijola, P. Sec Sihvonen, V. Veijola, T. Sec Toivonen, N. J.

Veil, (Mlle.) S., diffusion of colouring matters in gelatin and morphology of their reactions with electrolytes, A., 29. Electrometric control of displacement reactions, A., 32. Volta effect of electrolytic solutions against water, and characteristics of acidity and basicity, A., 292. Hydroelectric and contact cells, A., 800. Electrometric potential and concentration of electrolytes, A., 800. Liesegang periodicity and concentration of the reagent in the drop, A., 934.

Veiler, (Mlle.) M. See Pastureau, P. Veillon, R., rôle of bacteria, particularly anaërobes, in corrosion of steel, A.,

Veimo, R. See Sandved, K.

Veinberg, G. J., and Mischkevitsch, R., determination of oxygen in steel (phenomenon of adsorption), B., 412.

and Piradjan, T. V., determination of arsenic in steel, B., 323.

and Praschutinski, S. D., nitrogen in steel (phenomenon of liquation), B., 412.

Veingerov, M., limiting sensitivity of a radiometer depending on the principle of the gas thermometer, A., 1354. Veisbrute, L. See Cheraskova, E.

Veit. A. See Heller, K.

Veitch, F. P., jun. See Drake, N. L. Veitz, N. I. See Drinberg, A. J.

Veksler, V., and Isaiev, B., measurements of intensity of X-ray radiation with a proportional amplifier, A., 1480.

Velayos, S., paramagnetism of the octahydrated sulphates of the rare earths. I. Terbium, dysprosium, holmium, and erbium, A., 929. Magnetic properties of some compounds of the rare elements, A., 1057.

Velde, A. J. J. van de, oxidation [of organic matter] with potassium permanganate, B., 1022.

Veldhuis, M. K., production of alcohol [etc.] by thermophilic fermentations, B., 424.

Christensen, L. M., and Fulmer, E. I., ethyl alcohol from thermophilic fermentation of cellulose, B., 712.

Veldkamp, J., fine structure of the K edges of magnesium and aluminium, A.,

See also Knol, K. S. Veldman, A. R. See Waterman, H. I. Veletzkaia, O., Arkadiev's method applied to elimination of skin effect and to investigation of dynamic magnetisation curves, A., 671.

Velikovskaja, E. M. See Baraschkov, J.A.

Velikovski, D. S., and Varentzov, V. P., increasing pressure in preparation of lubricating greases, B., 356.
Velitschkin, V. S. See Scherlin, S. M.

Velitschko, J. P. See Borin, F. A.

Veller, E. A. See Porai-Koschitz, A. E. Veller, S. M., preparation of chromic sulphide, A., 810.

and Mirumian, A., preparation of calcium carbide from waste lime from acetylene production, B., 639. Veller, V. G., Owen, J. R., and Portwood,

L., effect of ingestion of saline waters on the $p_{\rm H}$ of the intestinal tract, the nitrogen balance, and the coefficient of digestibility, A., 507.

Vellinger, E., and Herrenschmidt, J. D., critical solution temperature of mineral

oils, B., 83.

Velluz, L., neutralising action of carbon disulphide on tetanus toxin in vitro, A., 1285.

See also Dufraisse, C. Velluz, (Mme.) L. See Dufraisse, C. Velsicol Corporation. See Hyman, J. Veltistova, M. V. See Jakimov, P. A. Veltman, the Uchte moorland, B., 466.

Vendeg, V., fate of sugar disappearing under influence of insulin, A., 1565.

Venderovitsch, A., and Drisina, R., effect of thermal and mechanical tempering on the back e.m.f. and currentvoltage curves of rock-salt crystals, A.,

Vendt, V. P. See Gurevitsch, V. G.

Vène, J., preparation of monoalkyl and aryl derivatives of β -campholide and of the corresponding δ-hydroxy-acids, A., 1114.

Venkataraman, K. See Dhingra, D. R., Gulati, K. C., and Mahal, H. S.

Venkataraman, P. R. Sce Chakravarti, S. K.

Venkateswaran, C. S., Raman spectrum of crystalline selenious acid, A., 136. Raman spectra of some formates and constitution of formic acid, A., 268. Fluorescence of ruby, sapphire, and emerald, A., 270. Raman spectra of orthophosphoric acid and some phosphates, A., 547. Raman spectra of metallic formates and constitution of formic acid, A., 776. Raman spectrum and electrolytic dissociation of selenic acid, A., 776. Raman spectra of selcnious acid and its sodium salts, A., 1179. Polarisation of Raman lines in some inorganic acids, A., 1444.

Venkatraman, T. S. See Iyer, K. V. G. Venn, R. J., recovery of fine coal from washery effluents, B., 305. Recovering solid matter from paper- and pulpmill effluent, (P.), B., 588.

Venning, E. M., and Browne, J. S. L., water-soluble pregnandiol complex from human pregnancy urine, A., 1564.

Venturello, G. See Goria, C.

Venulet, F., Goebel, F., and Tislowitz, R., effect of ammonia on acid-base equilibrium, A., 239.

Venus-Danilova, E. D., aldehydes and hydroxyaldehydes of the polymethyl-enic series. I. Transformations of hexahydrobenzaldehyde, A., 1109.

Ver, O. I., Vuidrin, I. S., and Romanov, M. M., corrosion of alloys under conditions of cellulose production, B., 924.

Vérain, M. See Michon, P., and Thiesse, X. Verbacndert, L., articles having facing of natural marble, (P.), B., 195.

Verburg, C. See Uyterhoeven, W. Verbyla, A. E., and Standard Varnish Works, pigments, (P.), B., 463.

Vercellana, G., contents of trypsin, cathepsin, amylase, and lipase in cancerous growths and blood, A., 1406. Content of hydrolases in some species of bacteria, A., 1422.

Vercelli, C. M. I., photo-electron effect of white-hot metals, A., 917.

Verchovtzev, M. P. See Ageenkov, V. G.

Vercillo, A., behaviour of wheat flour on hydrolysis and formation of sugar, B., 809.

See also Marotta, D.

Verdier, J., and Hurel, L., vapour tensions

of motor fuels, B., 1029.

Verdino, A., biogenic amines in toxicological investigations, A., 623. Stepphotometric determination of creatinine in food-stuffs, B., 713. See also Dischendorfer, O.

Verdlant, F. S., fur imitations on plush, B., 492.

Verdú, F. Seo Saenz de Buruaga, J.

Vere-Jones, N. W., examination and determination of cod-liver oil, B., 285.

Verein der Zellstoff- & Papier-Chemiker & Ingenieure, Strength-Testing Committee, report, B., 925.

Vereinigte Aluminium-Werke Akt.-Ges., continuous extraction of aluminium oxide from bauxite, (P.), B., 1038. Electroplating aluminium with metal, (P.), B., 1213.

and Goldschmidt A .- G., T., pure alumina, (P.), B., 542.

Verein. Deutsche Metallwerke Akt.-Ges. See Comp. Gén. d'Electromét.

Verein. Deuts. Metallwerke Akt.-Ges. Zweigniederlassung Heddernheimer Kupferwerk. See Metallges. A .- G.

Verein. Edelstahl Akt-Ges., carbides, carbonitrides, nitrides, borides, silicides, and titanides, (P.), B., 330.

Verein. Glanzstoff-Fabriken Akt.-Ges., [continuous] manufacture of staple fibres

[from viscose], (P.), B., 450. Verein. Lausitzer Glaswerke Akt.-Ges., glass-tube connexion, for laboratory and chemical technical apparatus, (P.), B., 790.

Verein. Leichtmetall-werke G.m.b.H., improving chemical stability of light metals and alloys thereof, (P.), B., 939.

Verein. Mautner Markhof'sche Presshefe Fabriken, and Szilvinyi, A., [pressed] yeast, (P.), B., 614.

Verein. Schnürriemen-Werke Vorsteher & Bünger, artificial leather, (P.), B., 187.

Verein. Stahlwerke Akt.-Ges., testing ductility of metal sheets, (P.), B., 553. Providing [iron or steel] wire with protective metallic coatings [by galvanising], (P.), B., 1047.

See also Dörrenhaus, G., and Schulz, E. R. Vereychen, W. See Itterbeek, A. van.

Vergiles, F., action of acids and alkali on sodium-butadiene rubber, B., 945. See also Andreev, N. Z.

Vergunas, F. See Matveev, A.

Verhoturov, A. I., dry dedusting of blast-

furnace gas, B., 175.
Verigo, O. K. See Jakimov, P. A.
Verischmipov, N. See Timofeev, S.

Verkade, P. E., recent researches on fat metabolism, A., 1144.

and Lee, J. van der, dicarboxylic acids as intermediates in biological degradation of normal saturated fatty acids and their derivatives, A., 234. Fat metabolism, A., 630. Syntheses of glycerides by means of triphenylmethyl compounds. II. Diglycerides, A., 704.

Lee, J. van der, and Alphen, A. J. S. van, fat metabolism. VII. β -Oxidation of normal saturated dicarboxylic acids administered per os, A., 234.

Lee, J. van der, Alphen, A. J. S. van, and Elzas, M., fat metabolism. β-Oxidation of normal saturated dicarboxylic acids administered per os, A., 103.

See also Holwerda, K.

Verleger, H., rotation-vibration spectra of methyl halides in the photographic infra-red to 1.11 \mu, A., 268. Rotationvibration spectrum of ammonia, A., 661.

See also Herzberg, G. Verleysen, A. See Manneback, C. Verma, M. N. See Prasad, S. P. Vermaas, N. See Böeseken, J.

Verman, L. C., fundamental physical properties of lac. III. Electrical properties, B., 703.

and Bhattacharya, R., darkening of lac solutions and effect of oxalic acid thereon, B., 703. Plasticising lac films. I., B., 800.

See also Bhattacharya, R.

Vermeulen, T. See Sage, B. H. Vernadski, V. I., variations of the at. wts. of terrestrial elements, A., 1313.

Vernazza, E., determination of the nitrogen of the nitro-groups of cyclotrimethylenetrinitroamine (T₄), A., 219.

Verne, J., carotenoids and oxidation of lipins, A., 510.

and Kubikowski, P., skatole and tissue cultures, A., 1292.

and Odiette, D., action of thyroid hormone on cells grown in vitro, A., 1158.

Verney, E. B. See Hart, P. D'A., and

Krayer, O.
Vernon, T. R., mycological problems of dairying. I. Surface moulding of butter. II. Internal and subsurface discolor-

ations, B., 120. Vernon, W. H. J., laboratory study of atmospheric corrosion of metals. II. Iron: the primary oxide film. III. Secondary product or rust (influence of sulphur dioxide, carbon dioxide, and suspended particles on rusting of iron), B., 150.

Verö, J., surface and gas-permeability of moulding sands, B., 842.

Verplancke, G., properties of virus causing degeneration diseases of beet, A., 395.

Verrier, M. L., and Pannier, R., constituents of visual purple and its relation to the visual cells, A., 1012.

Verschaffelt, J. E., transverse magnetic effect, A., 275. Curves of constant affinity in the phase changes of single substances, A., 667. Calculation of van der Waals a and b, A., 673. potential of a mixture, A., 798. Thermal Thermomechanics of the surface film. I. General; pure substances. II. Adsorption formula. III. Mixed phases, A.,

Verschilova, P. A., biochemical and serological differentiation of the Brucella group: its significance for epidemiology, Ā., 641.

Verstraete, E. O. K., constitution of the surface of active carbon, A., 1064. Verstraeten, R. See Wuyts, H.

Vertes, P., prevention of boiler scale and purification of feed-water with trisodium phosphate, B., 175.

Vervoort, B., iron-chromium alloys, (P.), B., 504.

Verwey, E. J. W., face-centred lattices with incompletely arranged cations, A., 142. Electrolytic conduction of a solid insulator at high fields; formation of anodic oxide film on aluminium, A., 170. Electrolytic double layer, A., 286. Electric double layer of colloids, particularly silver iodide, metals, and carbon, A., 934. Electric double layer and the stability of lyophobic colloids, A., 1067.

and Bruggen, M. G. van, structure of solid solutions of Fe₂O₃ in Mn₃O₄,

A., 421.

and De Boer, J. H., molecular energy of alkali halides, A., 1052. Cation arrangement in a few oxides with crystal structures of the spinel type, A., 1054. Surface oxide films, A., 1064.

See also Arkel, A. E. van, and De Boer, J. H.

Véry, G., change in mechanical properties of corrosion-resistant steels by cold deformation, B., 547. Veryard, J. T. See Morgan, (Sir) G. T.

Verzár, F., and Haffter, C., action of heavy water on isolated organs, A., 632.

and Jeker, L., fat absorption after adrenalectomy, A., 1563.

and Laszt, L., rôle of lactoflavin and flavinphosphoric acid in adrenal cortex deficiency and iodoacetic acid poisoning, A., 1552. Relation between vitamin- B_2 and the hormone of the adrenal cortex, A., 1567.

See also Laszt, L., McDougall, E. J., and Süllmann, H.

Veselov, A. I., elimination of free sulphuric acid from mine water, B., 324.

Vesely, E. See Hollander, F.

Vesely, V., and Medvedeva, A., 3:4:3":4"dipyrazolo-1':2':5':6'-naphthalene,

Vesselovski, O. See Zunz, E. Vesselovski, V. S., disperse structures I. Systematics, A., 273. and Vassiliev, K. V., disperse structures.

II. X-Ray investigation of the disperse structures of graphitic sub-

stances, A., 273.

Vesselovski, V. V. See Taylor, H. A.

Vessie, P. R., water-soluble colloidal molybdenum, (P.), B., 476, 1162.

Vester, C. F., influence of preparative media on cotton yarns, B., 404.

Vesterdal-Jörgensen, J. See Secher, K. Vestin, R., cozymase as phosphate carrier, A., 894.

See also Euler, H. von.

Vetrov, A. S., alkalimetry in presence of nitrite, A., 811. Determination of nitrates in presence of nitrites and certain organic compounds, A., 1219. Determination of nitrites in presence of nitrates and of certain organic substances, B., 985.

Vetscherski, P. A. See Kondak, M. A.

Vetter, H. See Kuhn, R. Vetter, J. J., and Natural Products Refining Co., forming chromium-iron alloys, (P.), B., 238.

Vial, J. Sec Hermann, H.

Vialard-Goudou, A., oxidation of organic compounds with perchloric acid, A., 1484. Viale, G., and Roncallo, E., nervous system and remote action of ultraviolet rays, A., 238.

Vian, A., and Moles, E., aluminium iodide, A., 945.

Vianen, A. van, determination of p_H , A., 577. Vibrans, F. C. Sec Richardson, A. S.

Vicard, P. G., apparatus for incorporation of a liquid with a gas, (P.), B., 962.

Vicars, Ltd., T. & T., and Crosland, E. W.,
treatment [scraping] of dough [from

mould rollers] in manufacture of biscuits,

vickers, P. See Eagle, H.
Vickers, P. See Eagle, H.
Vickers, V. R. S., Fishwick, V. C., Bescoby,
H. B., and Tinley, N. L., report of Department of Agriculture, B., 246. Vickers-Armstrong, Ltd., and Parker,

L. D., apparatus for drying slurry and other materials, (P.), B., 815.

and Sky, J. D., rotary kilns, furnaces, and dryers, (P.), B., 1135.
Vickerstaff, T. See Spring, F. S.

Vickery, H. B., and Pucher, G. W., glutamine and asparagine in tobacco leaves, A., 533.

Pucher, G. W., and Clark, H. E., glutamine metabolism of beet, A., 1569.

Pucher, G. W., Clark, H. E., Chibnall, A. C., and Westall, R. G., determination of glutamine in presence of asparagine, A., 60.

See also Mendel, L. B., and Pucher, G. W. Vickery, J. R., action of micro-organisms on fat. I. Hydrolysis of beef fat by some bacteria and yeasts tolerating low temperatures. II. Lipolytic activities of further strains of micro-organisms tolerating low temperatures, B., 798, 1104.

Vickery's, Ltd., and Salisbury, C. J.,

centrifuges, (P.), B., 3. Victor, B. J., and Victor Manufg. & Gasket Co., impregnating material, (P.), B., 985. Victor, J., and Andersen, D. H., effects of

œstrus and spaying on pituitary metabolism, A., 1427

Andersen, D. H., and Prest, M. R., changes in tissue metabolism in œstrual, diœstrual, and spayed rats, A., 1427.

Victor Chemical Works, rustproofing of ferrous articles, (P.), B., 1046.

and Zinn, R. E., water-softening reagents, (P.), B., 817.

See also Adler, H., Anable, F. M., Ashton, G. B., Gillet, J. M., Knox, W. H., jun., Lindberg, N. C., Vanderbilt, B. M., and Zinn, R. E.

Victor Manufacturing & Gasket Co. See Victor, B. J.

Vidacovitch, M. See Santenoise, D.

Vidal, P. L., system for vaporising [dis-infecting] liquids and absorption of smoke, evil odours, etc., (P.), B., 302. Vié, G., salt deposits of Salies-de-Béarn,

A., 184.

Viehoever, A., and Mack, H., biochemistry of amygdalin, A., 124. Viel, G. Sce Lebeau, P.

Vieles, P. See Godchot, M.

drying-shrinkage clay, B., 454. New enamelling procedure [for iron], B., 594. Roughening of iron

surfaces [to be enamelled], B., 595. Viennois, P. See Mouriquand, G. Vieregge, H. F. See Siebel, E.

Vierfond, T. See Léauté, A.

Vierling, O., and Mecke, R., near infrared absorption of hydrocarbons. III. Halogen derivatives of methane, ethane, and ethylene, A., 662.

Vietti, IV. V. See Texas Co.

C., hydrocarbon hydrogenation methods, (P.), B., 403. Treatment of coal and other solid carbonaceous materials for use in subsequent hydrogenation processes, (P.), B., 628.

Vignati, J., and Rauchenberg, M., influence of trisodium citrate on hamolysis of red cells by alcohol, A., 1531. Euglobulin in human serum in different forms of pulmonary tuberculosis, A., 1542. Effect of sodium citrate on disinfectant power of ethyl alcohol, B., 621.

Vignoli, L. See Mercier, F.

Vigoureux, P., stability of standard cells, A., 1224.

Viktorin, O., ultra-violet radiation of chemical reactions, A., 7. Substances of low conductivity, and the Reboul effect, A., 549. Emission of ultraviolet radiation in the Reboul effect, A., 664. Ultra-violet radiation in the Reboul effect, A., 921.

See also Audubert, R.

Viktorov, E. Sec Lev, L.
Viktorov, L. K., Guintze-Verner, L. A.,
and Demidova, M. V., precipitin titration
of types I and II antipneumococcus sera, A., 224.

Viktorov, M. M. See Schattenstein, A. I. Vila, A., and Tesson, F., measurement of mechanical properties of plastic films, B., 243.

Vilella, J. R., Guellich, G. E., and Bain, E. C., naming of the aggregate constituents in steel, B., 838.

Vilenski, B. A., and Pavlova, V. A., solvation phenomena in cascinate and palmitate sols, A., 1199.

and Weissberg, G., heat changes of egg-

albumin, A., 1202.
Vilenski, M. B., rapid analysis of glass sand, B., 454.

Viliamovitsch, E. Seo Skirstimonski, A. 0.

Vilina, S. L. See Schmidt-Hebbel, II.

Villa, P. See Corbellini, A. Villaamil, R. See Garcia, O.

Villanos, I., and Santos, A. C., ambalinine, a new non-phenolic alkaloid from Pycnarrhena manillensis, Vidal, A., 1527. Villela, G. G., and Castro, A., cholesterel

fractions in leprosy plasma, A., 1541. Vinas, J., dusting with barium silicofluoride for vine moth in 1934, B., 117. Vine magget: dusting with barium silicofluoride, B., 468.

Vinas, J., and Save, J., rapid determination of barium silicofluoride in insecticidal powders, B., 708.

Vinay, R. See Lambert, A.

Vincent, D. See Florence, G. Vincent, H., and Morel, F., neutralising action in vitro of some chemical substances on the toxicity of curare, A.,

Vincent, H. C., and McMurray, R. L., Artemisia rigida (Nutt.), Gray, A., 652.

Vincent, O. See Hägglund, E. Vincent, V., Herviaux, J., and Sarazin, requirement of manurial elements of different varieties of wheat, B., 115. Rôle of sulphur in manurial practico in Brittany, B., 1011. Sulphur in seaweed, marine slimes, and rain water in Brittany, B., 1060.

Vincke, E. See Oelkers, H. A.

Vinet, E., mineral nutrition of the vine: effect of manure on the development of cutting wood in relation to mineral composition and productivity, B., 1061.

Vinogradov, A. A., effect of using grog fired at a lower temperature on the properties of refractory materials, B., 933.

Vinogradov, A. P., composition of plankton. I. Plankton from the Ekaterininski pond at Detskoie Selo, A., 897.

and Bergman, G. G., vanadium in the petroleums and bitumens of the U.S.S.R., A., 701.

Vinogradova, E. I. See Levina, R. J. Vinogradova, E. V. See Terentiev, A. P. Vinogradova, N. I. See Krassinski, N. Vinogradoka, I. See Vinogradoka, N. See Vino

Vinogradsky, II. See Vinogradsky, S. Vinogradsky, S. [with Vinogradsky, II.], soil microbiology. VIII. Nodule bacteria

of Leguminosea, A., 640.

Vinokurov, L., and Levschin, V. L., extinction of the luminescence of phosphorescent substances activated by organic activators, A., 923.

Vinokurov, S., Eidelman, M. M., and Butom, M. L., determination of vitamin-C and influence of technological treatment on its preservation in cabbage, A., 530.

Kuznetzova, M., and Kovtun, K., dry beer yeast as nutriment, B., 903.
Vinti, J. P. See Fender, F. G.
Vintilesco, I., Ionescu, C. N., and Kizyk,

A., synthetic action of β -glucosidase on glucose, A., 1151. Ionescu, C. N., and Solomon, M.,

biochemical synthesis of β -glucosides derived from alcohols immiscible with water, A., 1151.

Vinz, A. O., oil treatment of coal, (P.), B.,

Violle, H., and Livon, J., action of sodium ricinoleate on rabies virus, A., 385.

and Rosé, E., correction of drinkingwater chlorination by addition of wine, B., 574. Virasoro, E. See Christen, C.

Virginia-Carolina Chemical Corporation. See Genz, F. W.

Virginia Smelting Co. See Binns, F. W. Virska, M. G. See Losev, K. I.

Virtanen, A. I., vitamins and plants, A., 908. Mechanism of symbiotic nitrogen fixation, A., 1432. Chemistry of grass crops, B., 71. Preservation of potato haulm, B., 853. Mixtures of hydrochloric, sulphuric, and sulphurous acids, (P.), B., 986. Winter milk rich in vitamins, B., 1125.

Virtanen, A. I., and Eerola, L. V., formation of vitamin-C in germinating seeds, A., 908.

and Hausen, S. von, root nodule bacteria of leguminous plants. XVII. Effect of air content of the medium on the development and function of the

nodule, A., 649. Hausen, S. von, and Laine, T., excretion of nitrogenous compounds from the root nodules of leguminous plants inoculated with different strains of the nodule organism, A., 649. Exerction of amino-acids from root nodnles and their chemical nature, A., 532.

and Kirkkomäki, T., formation of alcohol

from pentoses, B., 758.

and Laine, T., amino-acid content of plants at different stages of growth, A., 531. Root nodule bacteria of leguminous plants. XVIII. Breakdown of proteins by the root nodule bacteria, A., 640. Fixation of nitrogen in root nodules, A., 649. Fixation of nitrogen in leguminous root nodules, A., 760. Formation of cadaverine from lysine, A., 1028. Amino-acids of plants. I. Tryptophan content of leguminous plants at different stages

of growth, A., 1165. and Lindeberg, E., enzymic hydrolysis of tributyrin by pancreatic lipase, A.,

and Nurmia, M., winter hardiness of clover. I. Effect of cutting on carbohydrate reserves in red clover roots, A., 648.

and Saastamoinen, S., nitrogen fixation

by the alder, A., 532.

and Tarnanen, J., formation of aromagiving constituents in butter, B., 345. and Tornianen, M., amino-acid content

of root nodules, A., 913.

Virtue, R. W., sulphur partition in cat urines following injections of monobromobenzene, cystine, and methionine, A., 1406.

Visceniakova. See Schpak, M.

Vischnevski, A. N. Sec Gorschtein, G. I. Vischniac, \hat{C} . See Busquet, H.

Vischnitscheva, M. See Schachovitsch, K. Vischnjakov, M. N., reaction between magnesium and alcohols in presence of certain alkyl halides, A., 962

Visco, S., nutritional value of milk products, B., 73.

See Davidson, H. O., Hum-Viscose Co. phrey, J. W., and Koster, F. W. Visintini, F. See Bolsi, D. Visirischvili, N. See Stadnikov, G. L.

Visking Corporation. See Freund, E. O.,

and Schwalbe, W.

Vissac, G. A., separation of solid materials of different specific gravities, (P.), B., 80. Air cleaners and classifiers for fine coals, (P.), B., 84.

Visscher, M. B. Sec Ingraham, R. C. Vita, G., and Bracaloni, L., quinine iodobismuthate for hypodermic use, B., 812.

Vita-Zahnfabrik G.m.b.H., vorm. Hiltebrandt Zahnfabrik, [porcelain] tooth

fillings, (P.), B., 409.

Vitale, E., structure by means of the Raman effect (2 phenylacetic acid-1 sodium phenylacetate) (2 acetic acid-1 sodium acetate), A., 1445.

Vitali, T., "inhibition phenomena" of Donaggio, A., 363.

Vitamins, Ltd. Sec Graves, H. C. H.

Vitcha, J. F. See Yohe, G. R.

Vitek, V., polarographic studies with the dropping mercury cathode. LVII. Determination of oxygen in gases and solutions, A., 442.

Vitéz, S. von, physiological action of substances used in treatment of flour. II. Action on vitamin of flour and on the animal organism fed exclusively on bread. III. Effect of oxidising substances used in treatment of flour on vitamin of flour, A., 118.

Vitrefrax Corporation. See Curtis, T. S.Vitreous Enameling Co. See Frost, J. G. G. Vitro Manufacturing Co. See Vollkommer,

Vitt, A. A., and Schemjakin, F. M., theory of physico-chemical periodic processes. I., A., 27.

See also Schemjakiu, F. M.

Vitte, G., distribution of arsenic a few hours after ingestion of small amounts, A., 377.

See also Chelle, L.

Vittori, C., puzzuolanic cements and lean cements, B., 836. Puzzuolanic cements, B., 885.

and Cereseto, A., progressive solubilisation of the silica and R2O3 in puzzuolanie materials under the action of lime for determination of the hydraulic value of such materials, B., 103.

Vivario, R., and Beneden, G. van, chemical

study of butter, B., 426. See also Garot, L.

Vivian, A. C. See Hartley, A. C. Vivian, D. L., and Reid, E. E., preparation of lower alkanesulphonic acids, A., 312.

Vivian, R. E., electrolysis of molten antimony sulphide, B., 552.

Viviani, E., and Ruth-Aldo Co., dryspinning artificial textile fibres, (P.), B., 1202

Vladesco, R., deproteinisation of blood and urine by copper ferrocyanide, A., 126. Presence of lactic acid in the saliva, A., 362. Complete analysis of milk with a small sample, B., 520.

and Nichita, G., influence of pilocarpine on metabolism of the [salivary] gland and of smooth muscle, A., 1022.

Vladescu, I., and Dimoste, N., composition of Turkish tobacco. I., B., 813. Composition of Bulgarian tobacco, B., 906.

and Zaporojanu, I., determination of the moisture content of tobacco, B., 1128.

Vlasink, P. A. See Onischtschenko, I. K. Vlassopoulos, V., relation between chemical constitution and physiological action of organic compounds. I. Action of benzene, toluene, xylene, and mesitylene on white mice, A., 1292.

See also Schieblich, M.

Vlček, A. K., "antagonism" and "synergism" of ions in heterogeneous equilibrium in liquid systems of three components; two co-existing phases. X., A., 932. Analysis of enzyme bating materials [for hides]: report of the

Czechoslovakian Committee, 1933-35, B., 162. Vles, F., relations between electrochemical

constants, infra-red spectrum, and reaction properties, A., 268. Conditions for excitation of fluorescence of proteins, A., 1049.

Vles, S. E. See Arkel, A. E. van. Vlodrop, C. van. See Waterman, H. I. Vnukova, A., dependence of the Herschel effect on the surrounding gas medium, B., 1131.

See also Biber, V.

Voeckler, K., vibrations of air and carbon dioxide in closed bulb resonators, A.,

Voegelin, heat treatment of high-speed

voegtlin, C., Fitch, R. H., Kahler, H.,
Johnson, J. M., and Thompson,
J. W., cancer, I. Influence of parenteral administration of certain sugars on the pH of malignant tumours, A., 882.

Kahler, H., and Fitch, R. H., cancer. II. Determination of $p_{\rm II}$ of tissues in living animals by means of the capillary glass electrode, A., 751.

and Maver, M. E., effect of gliadin diet on malignant growth, A., 1538.

and Thompson, J. IV., lysine as a factor in malignant growth, A., 1538. Sec also Maver, M. E.

Völksen, W. See Feist, K.

Voet, A., colloidal solutions in concentrated electrolytes, A., 678. Ionic radii and heat of hydration, A., 1205.

Voet, J., extraction of bacteriophage coli (S) by ether, A., 1301.

Sco also Levaditi, C.

Voge, H. II., relation of the states of the carbon atom to its valency in methane, A., 1324.

and Rosenthal, (Miss) J. E., potential functions of molecular groups and the vibrations of the halogen derivatives of methane, A., 411.

See also Rosenthal, (Miss) J. E.

Vogel, A. I. See German, W. L.

Vogel, E., carbon monoxide content of laboratory air, B., 699. See also Kroepelin, II.

Vogel, H., calculation of viscosity [of mineral oils], B., 1188.

and Stohl, M., terpenoid ring systems. II. Polyionone, A., 1099.

Vogel, R., and Döring, IV., system ironcementite-manganese carbide-manganese, A., 280.

and Mäder, H., system iron-aluminiumcarbon, A., 420.

and Rosenthal, K., system iron-cobaltcobalt silicide-iron silicide, A., 420.

Vogel-Jørgensen, M., rotary kilns, (P.), B., 47. Rotary kilns for burning cement or similar materials, (P.), B., 195,

Vogelbusch, W., concentration by evaporation of solutions liable to be affected by high temperatures, B., 720. Design of apparatus and heat economy in the fermentation industry, B., 757.

Vogelenzang, E. H., quinine solutions for injection, B., 907.

Vogels, II., photolysis of nitrates (spectrophotometric determination of potassium nitrate; catalytic action of manganous salts), A., 687. See also Pringsheim, P.

Vogelsang, W. M. L., application of natural phosphates to [sugar-]cane land, B., 386.

Vogt, A. E., semi-coke, (P.), B., 628.

Vogt, C. C. See Paschke, H. Vogt, C. W., and Vogt Processes, Inc., processing of material, (P.), B., 673.

Vogt, Eckhart, magnetism and chemical linking in intermetallic phases, A.,

Vogt, Ernst, concentrated Californian grape

juice, B., 121.

Vogt, G. See Voss, W.

Vogt, H., new packing material [sinterite]
for socket joints, B., 863. Cores for high-frequency coils, (P.), B., 508. Electrical insulating material, (P.), B., 1104

Vogt, H. G. See Hudson, J. C.

Vogt, M., relationship between diffusion of alkaloids through blood-vessels and their ultrafilterability through artificial membranes, A., 1295. Vogt, R. R. See Danehy, J. P., Hennion,

G. F., and Young, C. A. Vogt, T., origin of tektites. I. Tektites as fulgurites [formed in the atmosphere], A., 449. Vogt, X. See Flatt, R.

Vogt Processes, Inc. See Vogt, C. W. Vohlonen, K. See Sihvonen, V. Vohmann, F. See Ges. für Forderanlagen E. Heckel m.b.H.

Voltrer, H., production of clastic articles from polyvinyl alcohol, (P.), B., 654.

Voichescu, P. See Spacu, G. Voicu, J., mathematical formula for determination of the total adsorbable substance of an adsorption system by means of repeated extractions, A., 561.

Voigt, A., chemistry of bleaching earths, B., 575.

See also Biltz, W.

Voigt, E., preservation of soil profiles, B., 949.

Voigt, H., and Hohberg, F., dew point of smoke gases containing sulphuric acid vapour, B., 527.

Voigfländer & Sohn Akt.-Ges., film base for motion-picture and other photographic films, (P.), B., 813.

Voit, K., and Schmidt, II. H., action of sulphur in experimental carbon monoxide poisoning, A., 1148.

See also Lauerson, F. Voith, Hanns. See under Voith, J. M.

Voith, Hermann. See under Voith, J. M. Voith, J. M., mechanically separating the mucin from the fibrous material in mechanical wood pulp or other fibre-containing mixture, (P.), B., 735. Centrifugal pulp screens or strainers for cellulose, etc., (P.), B., 1024.

Voith, W. See under Voith, J. M. Voitova, E. V., determination of bitumen

in brown coals, B., 676.

and Zamjatina, L. A., changes in Tscheliabinsk coal stored in stacks in the open, B., 964.

Vojutzki, S. S., improving tanning extracts, B., 420.

Vokac, R., impact test for studying characteristics of asphalt paving mixtures, B., 373.

Volarovitsch, M. P., thermal expansion of the binary system Na₂B₄O₇-B₂O₃ in the molten state, A., 150. Viscosity of fused rocks, A., 450. Application of viscosimetry and plastometry to problems of applied mineralogy, A., 583. Measurement of viscosity at high temperatures, as a method of physicochemical analysis, A., 956.

[with Borinevitsch, V. S.], viscosity and plasticity of disperse systems. IX. Plastic-viscous properties of printing

colours, B., 1217.

and Leonteva, A. A., determination of the specific volume of fused masses at temperatures up to 1400°, A., 186. Volarovitsch, M. P., and Leonteva, A. A., elasticity of rock melts, A., 1089. Determination of the viscosity of quartz glass within the softening range, B., 1040.

and Ravitsch, G. B., viscosity and plasticity of disperse systems. VIII. plasticity of disperse systems. VIII. Application of Batschinski's formula to the viscosity of hydrogenated fats, A., 156.

Ravitsch, G. B., and Gussjev, K. F., viscosity and plasticity of disperse systems. IX. Viscosimetric and Xray investigations of hydrogenated fats, B., 1053.

and Tolstoi, D. M., simultaneous measurement of viscosity and electrical conductivity of some fused silicates at temperatures up to 1400°, B., 497.

Tolstoi, D. M., and Kortschemkin, L. I., viscosity of molten lavas from Mount

Alaghez, A., 817.

Volck, $W.\ H.$, and California Spray-Chem. Corp., insecticidal dust, (P.), B., 853. Parasiticides and insecticides, (P.), B.,

Volf, F. F., and Michailova, E. P., preparation of erystalline aluminium hydroxide from chromate-aluminate solutions by precipitation with sulphuric acid, B., 317.

and Morochovetz, A. E., preparation of crystalline aluminium hydroxido from chromate-aluminate solutions by precipitation with carbon dioxide, A., 809.

Volfkovitsch, S. I., plastic masses from low-grade coal, B., 205.

See also Britzke, E.

Volfson, T. I. See Kozlov, V. V. Volinetz, M. I., determination of silica by means of 8-hydroxyquinoline, A., 812. Volinkin, N. I., preparation of resorcinol, A., 980.

Voliski, A. N., physicochemical conditions in application of oxygen-enriched air to non-ferrous metallurgy, B., 197.

Volk, H. See Kunze, H. Volk, K. E. See Hofmann, Wilhelm. Volk, O. H., chalk- and gypsum-plants, B.,

Volkenschtein, A. S. See Dobrjanski, A. F., and Klebanski, A. L.

Volkenstein, M. V., spectroscopic investigation of molecular association, A., 1449.

See also Syrkin, J. K.

Volkert, biological activity of forest soils in relation to acidification and buffering: methods for biological examination of soil, B., 383.

Volkmann, E. W., Rhodes, E. O., and Work, L. T., physical properties of coal tars; influence of tar- and solvent-insoluble constituents, B., 774. See also Rhodes, E. O.

Volkmann, H., determination of degree of depolarisation of light scattered by molecules, A., 9.

Volkov, A. See Vedenceva, N. Volkov, E., Rusch, W., and Dvinjaninova, I., rapid determination of sugar in food-stuffs containing much pasty starch, B., 712.

Volkov, K., and Almazov, A., influence of non-electrolytes on conductivity of aqueous electrolytes, A., 1071.

and Glasman, J., coagulation of sols of mercuric sulphide in alcohol, A., 1067.

Volkov, K., and Strashesko, D., catalytic oxidation of sodium sulphite in presence of cupriferous charcoal, A., 1075.

Volkov, K. P., and Chaimovitsch, R. S., determination of electrical conductivity of [beet] molasses, B., 211. Determination of the ash of beet molasses conductometrically, B., 710.

Volkov, M. I., and Kusljik, B. R., influence of additions of lime and cement on road-

building properties of clay soils, B., 372. Volkov, S. T., and Timofeev, L. V., methods of taking average samples of ores and non-metallio minerals under laboratory

conditions, B., 200.
Volkov, V. J., influence of colloids on electrode processes, A., 566.

Volkov, V. L., kinetics of reactions of

contact processes, B., 406.
Volkova, Z. V., wetting power of powders of different degrees of dispersion, A.,

Volkringer, H. See Pauthenier, M.

Vollbrecht, H., binding of screw joints at high temperatures, B., 598.

Vollertsen, J. J. See Irwin, W. H. Vollkommer, T. J., and Vitro Manufg. Co., ball mills, (P.), B., 960. Mounting of ball mills, (P.), B., 960.

Vollrath, H. B., use of corn [maize] sugar in viscose rayon manufacture, B., 828. Mechanical method for making viscose, B., 828.

Vollrath, R. E. See Guernsey, E. W.

Volmar, Y., and Hansen, B., alcoholysis of olive oil, B., 749.

Volochov, A., form of potassium and calcium in the leaves of Helianthus annuus, L., B., 515.

Volochvianski, V., micro-flotation for purification of sugar solutions, B., 854.

Volokitin, A. V., simple reaction for cobalt ion, A., 44.

Volovinskaja, V. See Schirokov, N. V. Volska, R. See Pavlov, P. N. Volwiler, E. H., and Tabern, D. L., alkyl-

and aryl-amides and -carbamides as hypnotics, A., 1237. See also Tabern, D. L.

Volz, K., testing suitability of cotton dyes,

B., 140. Vompe, A. F. See Preobrashenski, N. A.

Vondrák, J., and Kminek, M., influence of rainfall on beet-juice composition, B., 709. Ofner's method of determining small amounts of invert sugar, B., 711.

Vonzeerleder, A., tests for determining properties of cast aluminium alloys, B., 279.

Voorde, G. van de, electrically heated thermostat, A., 581.

Voorhees, V. See Standard Oil Co.

Voorhis, S. N. van. See Harnwell, G. P.
Voorst, F. T. van, semi-micro-butyric
acid number. I. and II. Simplified analysis of milk-bread fat, B., 418.

Vopička, E., polarographic studies with the dropping mercury cathode. LX. Influence of buffers and cations on the electro-reduction of fumaric and maleic acids, A., 1342.

See also Lankelma, H. P.Voříšek, J. See Hanuš, J.

Vorländer, D., supercrystalline organic compounds, A., 414.

and Bittins, C., as-diphenylhydrazine (supercooling of the liquid and mol. form), A., 199.

Vorobev, N., use of vegetable oils as antifoam agents, B., 28.

Vorobjev, N. K. See Goltzschmidt, V. A. Voronkov, V., and Sokolik, A., flame speeds in moist carbon monoxideoxygen mixtures, A., 684.

Voronov, N. M. See Nemilov, V. A. Vorontschichin, V. E., causticising sodium

carbonate solutions by means of granulated lime, B., 638.

Vorontzov, I. I., and Sokolova, P. N. influence of conditions of sulphonation on yields of sulphonic acids in the preparation of β -naphthol-6:8-disulphonic acid, B., 440.

Voroschcov, N. N., and Gutorko, A. V. naphthalene series. IV. Hydrolysis of a-naphthylamine by dilute sulphuric acid, A., 720.

and Karneeva, V. A., utilisation of pdichlorobenzene derivatives for the synthesis of azo-dyes, B., 682.

and Kozlov, V. V., naphthalene series. V. 8-Chloro-1-nitronaphthalene and 8chloro-a-naphthol. VI. Transformation of diazotised 8-nitro-a-naphthylamine, A., 461, 463.

and Schemjakin, M. M., alkali fusion. I. Fusion of potassium sulphanilate with alkali, A., 327, 1242.

Voroschoov, N. N., jun., and Mitzengendler, S. P., preparation of 8-hydroxyquinoline from 8-chloroquinoline, A., 998. Preparation of 8-aminoquinoline from 8ehloroquinoline, A., 1123. Vorovitsch, M. M. See Ginsberg, A. S.,

and Selivanov, B. P.

Vorsatz, F., improvement in the synthesis of hydroxycinnamic acids, A., 1251. See also Closmann, E, A, and Helferich, B.

Vorsina, M.A. See Boltunov, J.A. Vorsteher, C.A. See under Verein. Schnürriemen-Werke Vorsteher

Vorsteher, C. A., jun. See under Verein. Schnürriemen-Werke Vorsteher & Bünger.

Vosburgh, C. H., and Cole, H. W., recovery of carbon dioxide from a gas mixture, (P.), B., 739.

Voskresenskaja, N. K., and Janatjeva, O. K., equilibria in the system waterlithium chloride-ammonium chloride, A., 1464.

Voskuyl, R. J. Seo Greene, C. H.

Vosmaer, A., laboratory hints, A., 306. Vosnessenski, S., and Dubnikov, L. M., diffusion of water vapour through membranes of cellulose acetate and cellulose nitrate, A., 424.

Voss, H., local surface-hardening of crankshafts, B., 888.

Voss, Hans, relation between thyroid and central nervous system, A., 1031.

Voss, H. E. See Dirscherl, W.

Voss, J., and Kalle & Co., A.-G., treatment of regenerated cellulose articles, (P.), B., 637.

Voss, W., Heisig, H., and Wachs, W., glycoside fissions in non-aqueous media. II. Alcoholysis of disaecharides, A., 827.

and Vogt, G., convallamarin, A., 1492. and Wachs, W., glycoside fissions in non-aqueous media. I. Alcoholysis of phenylglucosides, A., 827.

Votchal, E. F., distribution and translocation of sugars in sugar-beet. I. Sugars in the tissue elements of sugarbeet in relation to its sugar content. II. Connection between vascular bundles of separate rings in the root and vascular bundles of separate leaves, A., 766.

Votin, L. See Medveczky, A.

Votoček, E., nomenclature of methylated sugars, A., 457.

and Allan, $Z_{\cdot \cdot}$, rotatory power of sugar hydrazones in relation to the stereo-chemical structure of the a-carbon atom. II., A., 1234.

and Malachta, S., passage from the sugar to the pyran and pyrrole series; methylisopyromucic acid, A., 479.

and Sgarzi, L., carbohydrates of the fruits of Rosa rugosa, A., 1036.

and Wichterle, O., 3-phonyl-1-β-phonylethylpyrazol-5-one, A., 84. Rotatory power of sugar hydrazones in relation to the stereochemical structure of the a-carbon atom. III., A., 1234.

Votta, E., pyrazolone and indazole deriv-

atives of diphenyl, A., 616.

Voyatzakis, E., use of potassium stanno-chloride dihydrate K₂SnCl₄.2H₂O in determination of iron, A., 304.

Vozdvishenski, G. S., electrodialysis, A., 285.

and Gerasimov, A. F., kinetics of reduction of copper sulphate, A., 164. Kamaletdinov, M. I., and Tschusainov, N.J., electroplating bismuth on metals, B., 201.

Sivochin, A. I., and Tschulakov, M. D., electrolytic burnishing of iron, B., 64.

Voznesenskaja, O. See Berlin, L. Vredenburg, J. C. See Dabsch, Higginson, G. S., and Nast, L. Vreeland, J. J. See Crampton, D. K.

Vřešťal, J. Sco Jilek, A. Vrkljan, V. S., and Katalinić, M., formation of molecular swarms in binary liquid mixtures, A., 931.

Vroonen, E, centrifugal purifier for molten

metals, B., 1210.
Vruzevitsch, S. A. See Akimov, G. V. Vscljubski, S. B. See Urazovski, S. S. Všetečka, L., application of chloroamine

in organic analysis, A., 1398. Vuarambon, R. J., influence of alcohol

on maltase, A., 637. Vucetich, D. C., determination of alcohol in forensic chemistry, A., 1308.

Vuidrin, I. S. See Ver, O. I. Vuks, M., slightly modified scattered radiation of crystals and the characteristic vibrations of the molecules in the

lattice, A., 547. Vul, B. M. See Goldman, I. M.
Vulifson, V. I., and Michailov, L. I., durability of phosphatic coatings in

steam boilers, B., 411.

Waal, C. See Kok, J. A. F. Waché, X. See Chevenard, P.

Wachholder, K., and Podestá, H. H., determination of ascorbic acid, A.,

and Uhlenbroock, K., increase of reducing substances (glutathione and ascorbic acid) in organs in training, A., 507.

Wachs, W. See Voss, W. Wachsmuth, H., extremely sensitive reaction for some nitrogenous bases, A., 1529.

Wachstein, M., mechanism of the action of di-iodotyrosine, A., 633.

Wacker Gesellschaft für Elektrochemische Industrie G.m.b.H., A., cleansing of rigid materials, (P.), B., 509.

Wackers, (Miss) M. L. See Blanksma, J, J

Waclawik, J. See Powers, W. II.

Wad, Y. D., and Jackson, F. K., humic composts and inorganic fertilisers, B., 514.

See also Rao, I. M.

Wada, M. See Kitagawa, M., Kuroda, (Miss) C., Sato, Hiroshi, and Urbain, P. Wada, N., and Sato, Masanori, synthesis of ethylene glycol, B., 137.

Wadano, M. See Hess, K. Waddington, J. See Cuthbertson, J. W. Wade, J. R., water-treatment plant, (P.), B., 222.

Wadenberg, S., dyeing of woollen rag stock and other textile waste fibre, B., 15.

Wadhera, M. L. See Yajnik, N. A. Wadleigh, C. H. See Beckenbach, J. R. Wadsworth, A., and Crowe, M. O'L.,

absorption spectra of kephalin, lecithin, and selected antigens, A., 1178.

Wadsworth Watch Case Co., Inc. See McFarland, J. C.

Wäffler, H. See Scherrer, P.

Waelsch, H., and Kittel, S., periodic phenomena in diffusion and adsorption. II. Experiments without membranes, A., 1064.

Kittel, S., and Busztin, A., periodic phenomena in diffusion and absorption. Use of membranes, A., 284.

Waeser, B., chemical utilisation of potash salts, B., 190. Extraction of potash and aluminium from alumite, B., 367. Ammonium nitrate and fertilisers containing it, B., 639.

Wagenaar, M., making latent finger-prints visible, A., 125. New crystalline derivative of blood-pigments, A., 355. Microchemical reactions of novocaine, B., 252. True and poisonous star anise, B., 1233.

Wagenen, G. van, effects of cestrin on the urogenital tract of the male monkey, A., 527.

Wagener, C., new filter element, B., 959. Wagenmann, K., absorption tube, A., 815.

Wager, V. A., bleaching citrus fruits for removal of sooty blotch blemish, B.,

Wagner, A., critique of daily course of eosmic radiation, A., 1046.

Wagner, C., disorder phenomena in ionic lattices as basis for ionic and electronic conduction, A., 138. Theory of formation of surface films on metals. II., A., 792. Elementary processes in the formation of metal oxide from metal and oxygen, and in related reactions, A., 1470.

and Beyer, J., nature of lattice disarray in silver bromide, A., 669.

and Koch, Ernst, electrical conductivity of oxides of cobalt and iron: recrystallisation of zine oxide, A., 779.

Wagner, C. L. See Abrams, A., and Hunicke, C. C.

Wagner, \hat{C} . R., and Osterstrom, R. C., conversion of hydrocarbon gases into high-antiknock-rating gasoline, (P.), B.,

Wagner, E. C., and Simons, J. K., experiments in the heterocyclic series, A., 1000, 1391.

Wagner, F. E. See Schwartz, F. W. Wagner, F. H., and Bartlett Hayward Co.,

dust collector, (P.), B., 353. Wagner, F.J. See Kirby, W. W. Wagner, F.W. See Campbell, R.W.

Wagner, Georg. Sec Klemenc, A.

Wagner, Gustav, and Lippert, L., polymorphic transformation of simple ionic lattices. 1. Transformation of easium chloride into sodium chloride lattice by heating. II. Transformation of sodium chloride lattice into easium chloride lattice, A., 416, 1186.

Wagner, G. B. See Young, H. D.

Wagner, G. H. See Aluminum Co. of America.

Wagner, H., preparation of emulsion media [for paints], B., 607. Oil-free emulsion vehicles, B., 800. Oil-free and water-in-oil emulsion coatings, B., 1005.

and Fischer, Georg, film formation from

emulsions, A., 1459.

and Pabst, E., classification and evaluation of emulsion[-paint] vehicles, B., 108. Evaluation of rust-preventive pigments by swelling measurements [in water], B., 1217. and Rene, A., hydrated chromium oxide

green [pigments], B., 893.

Wagner, H. A. See Grine, H. A.

Wagner, H. II'. See Sturtevant Eng. Co.

Wagner, K., mass and energy, A., 1046.

Wagner, K. M. See Kangro, W. Wagner, R. See Hilpert, R. S.

Wagner, Richilde, absorption of radium emanation by the human body through the skin, A., 888.

Wagner, R. L. Sec Linde Air Products

Wagner, W. (Wien). See Kutzelnigg, A. Wagner, William, expulsion of nicotine from tobacco, (P.), B., 395.

Wagner, W. E., and Western Cartridge Co., propellant powders, (P.), B., 765.

Wagner Electric Corporation. See Cox,

J. C., and Doelling, G. L.Wagner-Jauregg, T., isolation of adenosinetriphosphoric acid from yeast, A., 523. Acridine salts of adenosine-polyphosphoric acids, A., 743. and Möller, E. F., dehydrogenase of lactic acid, A., 109. Activation by glutathione of enzymic dehydrogenation of alcohol. A. 109.

ation of alcohol, A., 109.

and Rauen, H., enzymic dehydrogenation of glycerophosphoric acid, A., 242. Dehydrogenation of citric acid and isocitric acid by cucumber-seed de-

hydrasc, A., 242.

and Rzeppa, H. W., inhibition of glycolysis by heavy metals; reactivation by Warburg's co-enzyme and Euler's cozymase, A., 895. Inhibition of glycolysis by heavy metals and reversal of this inhibition, A., 1555.

Wagreich, H., and Nelson, J. M., oxidation product of pyrocatechol when oxidised by means of tyrosinase, A., 1417.

Wagstaff, H. F. See Imperial Chem. Industries.

Wahl, H., dyes and photography, B., 572. Chemistry of sensitisers and photography in the infra-red, B., 909.

Wahl, Henri, chloro-derivatives of xylene, A., 323. Chlorination of p-chlorotolucne, A., 1100.

Wahl, M. H., Huffman, J. F., and Hipple, J. A., jun., attempted concentration of

the heavy nitrogen isotope, A., 39. Wahle, O., testing of pickling baths in enamel works, B., 544.

Wahlin, II. B., and Reynolds, J. A., positive and negative thermionic emission from molybdenum, A., 4.

Wahls, H., equivalent (mean) thermal conductivities of insulators made up of separate layers under various conditions,

Wahlstrom, E. E., age relations of the Ward ores, Boulder County, Colorado, A., 700.

Waibel, F., electrical conductivity of cuprous oxide in equilibrium with its adjacent phase, A., 139. See also Schottky, II'.

Wai-Hsun, L. See Durand, J. F. Wain, R. L. See Bennett, G. M.

Wainwright, G. E. See Imperial Chem. Industries.

Wainwright, J. A. See Brit. Celanese. Wainwright, W. W., human saliva. II.

Procedure for calcium analysis, A., 625. Wait, J. C. See Wait, J. F.

Wait, J. F., treatment of petroleum hydrocarbon oils and spirits, (P.), B., 260.

and Wait, J. C., purification of hydrocarbons, (P.), B., 359.

Wajzer, J., and Lapicque, L., fats and a theory of pharmacodynamic actions of alkali and alkaline-earth ions, A., 105.

and Lippmann, R., action of pilocarpine and potassium on phosphorylation in

muscle, A., 1547.

Lippmann, R., and Marnay, A., action of adrenaline and potassium on the phosphagen of muscle poisoned with iodoacetic acid, A., 385.

See also Nachmansohn, D. Wakasugi, M., kinds and characteristic properties of heat-insulating materials, B., 671.

Wake, J. F., heating and drying of materials such as coal, coke, broken stone, sand,

gravel, grain, etc., (P.), B., 255.

Wakefield, H. F., and Bakelite Corp., reactive [phenol-formaldehyde] resin

compositions, (P.), B., 464. Wakeford, L. E. See Berger & Sons, Ltd., L.

Wakeham, G., and Halenz, H. F., distribution of iron in certain tissues of normal and ansenic albino rats, A., 1403.

Wakerlin, G. E., presence of anti-pernicious anemia principle in normal human

urine, A., 881.

and Bruner, H. D., toxic factor in per-nicious anæmia, A., 363. Reticulocyte-stimulating principle for the pigeon in normal human urine, A., 1014.

Wakker, C. H., and Briner, E., chemical action of electric discharges. X. Effect of increase of frequency conjoined with addition of lithium to the electrodes and enrichment of the air with oxygen on the yield of nitrie oxide, A., 571.

See also Briner, E., and Siegrist, B.

Wakkie, J. G., possible structure of chlorophyll granules in the plastid, A., 393. See also De Jong, $H.G.\overline{B}$.

Waksman, S. A., chemical nature of organic matter or humus in soils, peat bogs, and composts, B., 113.

and Cordon, T. C., lignin, A., 994. and Hutchings, I. J., chemical nature of organic matter in different soil types, B., 114. Rôle of plant constituents in preservation of nitrogen in the soil, B., 164. Decomposition of lignin by [soil] micro-organisms, B., 1170.

Wal, M. J. van der, safe pickling solutions for cleaning assembled [metal] apparatus, B., 200.

Walbe, V. See Wanag, G.

Walbrecht, H. See Anschütz, L.

Walbum, L. E., mammalian organism and action of metallic salts, A., 372.

Walch, H., and De Laval Separator Co., centrifugal treatment of viscoses, (P.), B., 1201.

Walch, Hans. See Wieland, II.

Walcher, W. See Koch, J.

Wald, F., iodine method of determining sulphur in cast iron and steels by combustion in oxygen, B., 887.

Wald, G., pigments of the bull-frog retina, A., 96. Carotenoids and the visual cycle, A., 226. Visual purple system in marine fishes, A., 226. Pigments of the retina. I. Bull frog. II. Sea robin, see base and seup A 1012 1404 sea bass, and scup, A., 1012, 1404. Wald, M. See Mark, II.

Waldbauer, O., determination of sulphur in air of Budapest by Liesegang's bell method, B., 573.

Walde, A. M., alkaline oxidation of lignin, B., 405.

Walde, E., and Edgar, R., acid and alkaline hydrolyses of silk fibroin, B., 13.

Walden, G. B., and Lilly & Co., anti-anæmic substance, (P.), B., 1129.

See also Lilly & Co., E., and Robscheit-Robbins, F. S.

Walden, G. H., jun., and Cohen, M. U., X-ray investigation of the solid solution nature of nitrate-contaminated barium sulphato precipitates, A., 275. See also Gaines, A., jun.

Waldenström, J., uroporphyrin-III, A.,

Waldmann, G., green chrome pigments, B., 1005. Preparation of chrome yellow, B., 1055.

Waldmeier, M., absorbability of energyrich electrons, A., 1439.

Waldo, A. W., X-ray powder diffraction data for antlerite and brochantite, A.,

Waldo, J. H. See Shonle, H. A.Waldo, P. G., and Davey, W. P., technique

for making sound ingots for density determinations, A., 1085.

Waldram, J. M. See Foster, R. Waldram, J. M. See Gen. Electric Co. Waldron, L. J. See Rawdon, H. S.

Waldschmidt-Leitz, E., structure of the simplest proteins, A., 90. Recent advances in enzyme chemistry, A., 1149.

and Kofranyi, E., enzymic proteolysis. VI. Structure of protamines. Clupein, A., 110. and Mayer, K., enzymic amylolysis.

V. Amylophosphatase of barley, A., 111.

See also Samec, M.

Waldstätten, E., flowers and leaves of Malvae sylvestris, subsp. Mauritanicae, Thellung, B., 1233.

Walen, R. J., disintegration of boron by neutrons, A., 772.

See also Nahmias, M. E.

Wales, J. P., and Mine & Smelter Supply Co., grinding mill, (P.), B., 623.

Walke, H. J., 19 K43 and radioactivity of potassium, A., 5. At. wt. of element 93, A., 400. Helium content of beryls, A.,

Walker, A. C. See Bell Telephone Labs. Walker, A. G., and Walker, J. R. D., production and uso of de-humidified air in mines, B., 814.

Walker, A. W., precipitating action of basic dyes on bacteriophage and bacterial

proteolytic enzymes, A., 1562.

Walker, C. H., Sykes, C., and Associated Electrical Industries, application of [metal] coatings to surfaces, (P.), B., 938.

Walker, E. E. See Imperial Chem. Industries.

Walker, F., Saint Vincent de Paul and the alchemist, A., 1356.

Walker, F. T., decay in structural timbers. B., 103.

See also Imperial Chem. Industries.

Walker, G. K., grinding [wood] pulp, B.,

Walker, H. W. See Du Pont de Nemours & Co., E. I.

Walker, J., synthesis of dl-piperitone $(dl \cdot \Delta^1 \cdot p$ -menthen-3-one), A., 80.

See also Myddleton, W. W., Peak, D. A.,

and Robinson, Robert.
Walker, J. C., and Empire Oil & Refining Co., oxidation of hydrocarbons, (P.), B., 822. Hydrocarbon-oxygen compounds, (P.), B., 920.

and Tretolite Co., breaking of oil-water emulsions, (P.), B., 486.

Walker, J. R. D. See Walker, A. G. Walker, R. H. See Dean, H. L., Neal, O. R., and Thorne, D. W.

Walker, R. S., and Electro Lime & Ice Corp., treatment of limestone [for preparation of pure carbon dioxide], (P.), B., 693.

Walker, T. K., biochemistry of bacteria, A., 640.

and Parker, A., preservative principles of hops. XVII. Colour standards for use in the gravimetric determination of the antiseptic constituents of hops, B., 662.

Walker, T. L., enelectrite, a new mineral found in chemawinite, A., 186. Chemawinite or Canadian amber, A., 186.

Walker, W. B., and Fry & Sons, Ltd.,

J. S., a beverage, (P.), B., 170.
Walker, W. O., Kopsch, U., and Smith Corp., A. O., cobaltic acctate, (P.), B.,

Walker, Ltd., C. & W. See Milbourne,

Wall, E. M., and Shorland, F. M., nature, properties, and determination of iron in blood, A., 1009.

See also Shorland, F. B.

Wallace, E. L., determination of moisture in leather; report of a committee [of the American Leather Chemists Association], B., 706. and Kanagy, J. R., deterioration of

vegetable-tanned leathers containing sulphuric acid and glucose, B., 163. Deterioration of vegetable-tanned leathers containing sulphuric acid and

glucose, B., 290.

Kanagy, J. R., and Critchfield, C. L., influence of sulphur-containing tanning materials on deterioration of vegetable-tanned leathers by sulphuric

acid, B., 208.

Wallace, E. R., fungus diseases [of bulbs], B., 38. Wallace, G., inks for use on metal foil,

B., 1217.

Wallace, G. IV., carbonisation of coal or other carbonaceous substances, (P.), B., 357.

See also Griggs, A. R. Wallace, H. A. See Groggins, P. H. Wallace, Henry A. See May, O. E.

Wallace, M. \check{D} ., and Baumgartner, J. G., destruction of micro-organisms in presence of sugars. II. Influence of sugars in chemical disinfection, B., 397.

Wallace, N. E. See Wright, R. Wallace & Tiernan Co., Baker, J. C.

Wallach, R. N., and Sylvania Industrial Corp., opaque [sheet] material, (P.), B., 1147.

Wallbach, G., therapeutics of [gastrie] hyperacidity, A., 625. Iron absorption and treatment of anamia. I. and II.. A., 1406.

Wallenfels, K. See Soltys, A.

Wallenstein, foam prevention in the sugar industry, B., 1120.

Wallerstein, H. See Scholl, R. Wallerstein, L., beers and ales, (P.), B., 343. Maturing and ripening of malt boverages, (P.), B., 758. Fermented boverages, (P.), B., 758. Pfannmuller, J., Noë, A., and Waller-

stein Co., jelly manufacture, (P.), B., 170.

and Wallerstein Co., invertase preparation, (P.), B., 119. Pectin preparations, (P.), B., 762.

Wallerstein Co., Inc. See Wallerstein, L. Walling, J. G., apparatus for agitation of electrolyte in electrolytic cells, (P.), B., 27.

Wallingford, V. H., and Homeyer, A. H., evaluation of lime methods for determining morphine in opium, B., 858.

Wallis, J. S., De Bence, S. B., and Alco Products, Inc., tube still and furnace construction, (P.), B., 1184.

and Foster Wheeler Corp., oil distillation, (P.), B., 1190.

Wallis, T. See I. G. Farbenind.
Wallis, T. E., search for diagnostic structures, B., 569.

Wallmann, $C_{\cdot, \cdot}$ and Kumpmann, $E_{\cdot, \cdot}$ age-resisting iron and steel, (P.), B., 25. Wallraff, A. See Rogowski, W.

Walls, E. See North Brit. Rayon, Ltd. Walls, II. J., catalytic action of hydrogen on carbon monoxide flame, A., 1470.

Wallwork, J. A., dyeing cellulose acetate fibres, B., 98.

See also Loitch & Co., Ltd., J. W. Walmsley, P. D., and Kendall, W. B., apparatus for distillation of volatile constituents from washing or similar oils, (P.), B., 3.

Walsh, J. F., Caprio, A. F., and Celluloid Corp., solvent for acetylcellulose, (P.),

Walsh, J. R., concentrator, (P.), B., 721. Walsh, W. F., and Tressler, D. K., beverages from rhubarb, B., 665.

Walsh, W. L. See Underwood, H. W., jun. Walstoner, H. W., selection of acid shading colours for chrome dyes on woollen and worsted piece goods, B., 57.

Walter, B., apparently general rule for nuclear transformations, A., 918.

Walter, C. T., and Industrial Patents Corp., heat-exchange devices, (P.), B., 255. See also Industrial Patents Corp., and Swift & Co.

Walter, G., ionic complexes of polymeric compounds, A., 277. Condensation of carbamide and formaldehyde, A., 321. Conditions under which insoluble and infusible resins are produced, especially those formed by arylsulph[on]amide and formaldehyde, B., 336. Walter, G., simplification of Sudendorff-Lahrmann method for determining creatinine in meat cubes, B., 1065.

Walter, G. F. See Sherrill, M. L. Walter, II., tables for the calculation of the osmotic value of expressed plant juices, sugar solutions, and some salt solutions, A., 1035. Water and salt content of East African mangroves, A., 1569

Walter, J. M. See Imperial Chem. Industries.

Walter, R. See Ostwald, Wolfgang. Walter, S. Sco Dörrenhaus, G.

Walter-Lévy, (Mmc.) L., basic magnesium sulphatocarbonate, A., 689. Basic magnesium sulphates, A., 944.

Walters, F. M., jun., and Wells, C., alloys of iron, manganese, and earbon. XV. Ternary diagram and general summary, A., 1061.

Walters, G. S. See Hartshorne, N. II. Walters, L. S., colorimetric determination of phosphoric acid in brewing materials, B., 518.

Walters, W. I., rustproofing compositions, (P.), B., 1046.
Walters, W. P. See Davies, W. C.

Walterskirchen, L. See Unna, K.

Walther, A. See Kara, I., and Petuhov, V. Walther, C., viscosity relationships of lubricating oils, B., 532. Continuous distillation of mineral oils in the laboratory, B., 1076. Distillation curves of lubricating oils, B., 775.

Walther, H., bituminous emulsions, B., 402. Choice and application of bituminous paints, (P.), B., 461. Permeability of bituminous paints to water, B., 846.

Walther, H. F., slag control for basic electric-furnace steel, B., 410.

Walther, K., silicified aragonite twins from Uruguay related to Molina-Bastennes type, A., 959.

Walti, A. See Bär, R.

Walton, B. See Phillips Chem. Co., C. II. Walton, C. L., control of Phyllopertha horticola, L., in grassland, B., 660. Control of flea-beetles by means of seed dressing, B., 899. Ogilvie, L., and Mulligan, B. O., effect

of calcium cyanamide and of formalin

on pea "sickness," B., 661.
Walton, E. See Morgan, (Sir) G. T.
Walton, H. F., and Wolfenden, J. H., temperature coefficient of the electrolytic separation of the hydrogen isotopes, A., 1347.

See also Edwards, A. J.

Walton, L., Herbold, M., and Lindegren, C. C., bactericidal effects of vapours from crushed garlie, A., 899.

Walton, R. P., absorption of drugs through the oral mucosa. II., III. Fat-water solubility coefficient of alkaloids, A., 892.

Waly, A. See Thaddea, S. Walz, A. See Eilender, W., and Meyer, O. Walzel, R., and Neuwirth, F., determination of solubility of steels in acids, B., 598.

Walzer, M. See Wilson, S. J. Wambacher, H. See Blau, M.

Wampler, E. I. See Hoskins, W. M. Wampler, R. W., and Watkins, G. B., thermal endurance of different types of flat glass in relation to thickness, B., 884.

See also Watkins, G. B.

Wampner, W. L. See Bogin, C. Wan, C. S., and Ho, K., nomograph for iodine value of tung oil, B., 893.

Wanag, G., condensation of bindone with a-halogenocarboxylic esters, A., 332. 2-Nitroindan-1:3-dione and its salts, A., 853.

and Walbe, V., action of amines on indandione derivatives, A., 853.

Wandke, A., and Moore, T. C., pyrometa-somatic vein deposits at Tepezala, Aguascalientes, Mexico, A., 308.
Wandless, A. M. See Macrae, J. C.
Wandrowsky, B. See Alton, F.

Wang, C. See Tu, C. M. Wang, C. C., calcium determination in

biological material, A., 126.

Wang, C. F., nitrogenous metabolism in Manchuria, A., 754. Cirrhosis of the liver. I. Etiology, symptomatology, liver-function tests and gastric juice findings. II. Calcium, total proteins, sugar, and chloride distribution in various body-fluids, A., 1289.

Wang, F. S., extended Thomas-Fermi method for atomic nuclei, A., 1046.

Wang, G. H. See Hsü, C. F. Wang, H., and Cheng, F. W., iodine in Chinese common salt, B., 192.

Wang, H. C. See Tien, C. C.

Wang, H. H., Wen, S. P., and Chang, K. J., recovery of alumina and fertilisers from Chinese alunite. I. Composition of Chinese alunite, B., 1150.

Wang, H. L. See Tang, Y. C. Wang, K. See Bau, K. II. Wang, M. H. See Ho, P. C.

Wang, P. C., calcium, magnesium, iron, and phosphorus contents in table salts consumed in China, B., 452.

Wang, S., quantitative studies of the normal human gastric secretion, A., 1536.

Wang, S. H. See Chu, H. I.
Wang, S. M., Kao, Cheng-Heng, Kao,
Chung-Hsi, and Sah, P. P. T., pbromobenzhydrazide as a reagent for the identification of aldehydes and ketones, A., 353. See also Sah, P. P. T.

Wang, T. II., fluorides in Foochow waters and dental defects, A., 1148.

and Ni, S. M., chemistry of the manufacture of soya-bean sauce by the Kwantou process, B., 1175.

Wang, T. K. See Rossi, Giacomo. Wang, Y., assimilation of nitrites by fungi. III., A., 1558.

Wu, H., and Chou, C. Y., effect of male sex hormone on respiration of sex-organs in castrated rats, A., 1302.

See also Sakaguchi, K.

Wang, Y. C. See Chang, II. L. Wang, Y. W. See Tang, Y. C.

Wanger, J. See Barth, K.

Wannier, G., mobility of the hydrogen and hydroxyl ions in aqueous solution. 1. and 11., A., 31, 161.

Wannow, II. A., electrolyte coagulation of weakly solvated sols and electrolyte activity. V. Determination of exact coagulation values by turbidity

measurements, A., 1461. See also Ostwald, Wolfgang.

Want, F. E. See Julian, P. L.

Wanzinger, A., bleaching cellulose-containing fibres, e.g., cotton, by means of solutions of per-compounds, (P.), B.,

Warburg, O., and Christian, W., destruction of hydrogen transporting co-enzyme by ultra-violet light, A., 378. Nicotinamide and luminoflavin, A., 380. Optical detection of hydrogenation and dehydrogenation of pyridine in the fermentation co-enzyme, A., 1023. Fermentation co-enzyme, A., 1025. Pyridine as the active group of dehydrogenating enzymes, A., 1025.

Christian, W., and Griese, A., hydrogentransporting co-enzyme, its composition and mode of action, A., 377.

See also Karrer, P.

Warcollier, G., and Le Moal, A., variations in relative proportions of sucrose, glucose, and fructose, in apple juice during alcoholic fermentation, B., 249.

Ward, A. F. H., and France, G. D., oxidation of linseed oil in solution, B.,

Ward, A. G. Sec Bernal, J. D.

Ward, A. L., and Fulweiler, W. H., corrosion-resisting materials for gas appliances, B., 501.

Ward, A. M. See Fleek, H. R., Kny-Jones, F. G., and Shennan, R. J. Ward, A. N. See Dunlop Rubber Co.

Ward, A. R., [sewage-]sludge digestion at Stockport, B., 301. Distillery waste and its effect on treatment of sewage

at Stockport, B., 302. Ward, F. C. See Johnson, A. H.

Ward, G., and Du Buy, H. G., pigments of the oat colcoptile, A., 1571.

Ward, G. E., Lockwood, L. B., May, O. E., and Herrick, H. T., Rhizopus. 1.
Production of d-lactic acid, A., 1154.

Ward, H. See Courtney, J. R. Ward, H. G. See Booth Steamship Co.

Ward, J. C., Munch, J. C., and Garlough, F. E., strychnine. VI. Variation in physiological action, A., 1295. See also Munch, J. C.

Ward, J. F., fish-liver oils, particularly halibut-liver oils, (P.), B., 108. Oils from fish [halibut] livers, (P.), B.,

846. and Haines, R. T. M., determination of vitamin-A, A., 646, 1159.

Ward, J. S., Gehman, S. D., and Wingfoot Corp., determination of the rubber content

ward, J. T. See Keith, P. C., jun.
Ward, N. R. See Teckemeyer, J. F.
Ward, W. H. See Hartshorn, L.
Wardlaw, C. W., tropical fruits. U.

Internal gas concentrations in fruit, A., 1162.

and Leonard, E. R., tropical fruits. I. Development, ripening, and senescence with special reference to respiration, A., 1162. Storage of avocado pears, B., 426. Wardlaw, W. See Cox, E. G., Jennings,

J. S., and Sharratt, E. Wardley, T. See Brit. Hartford-Fairmont

Synd.

Wardlow, R. H. See Dounce, A. L. Ware, E. E., soya-bean oil and the paint

industry, B., 1107. Ware, G. C., Spulnik, J. B., and Gilbert, E. C., ionisation constant of hydrazinium

hydroxide, A., 1339. Ware, J. O. See Young, V. A.

Ware, S. D., jigging machines for con-centrating ores and other materials,

(P.), B., 176. Ware, W. C., and Sickle, E. B., [plastic fireproof] adhesive, (P.), B., 513.

Warembourg, H., products of carbohydrate metabolism in the blood of diabetics; residual chromic index, A., 1539.

Driessens, J., and Labenne, G., toxic effects of neutral diaminoacridine methochloride, Λ ., 1550.

See also Polonovski, Michel.

Warfield, C. N., analysis of the data on radioactivity induced by neutron bombardment, A., 1315.

and Ruark, A. E., analysis of data on radioactivity induced by neutron bombardment, A., 1173.

Warhurst, E. See Burkhardt, G. N., and Tuck, J. L.

Waring, C. E. See Eastman Kodak Co. Waring, H., and Goodlass Wall & Lead Industries, apparatus for separating

solids from gases, (P.), B., 305. Waring, R. K. See Improved Metallurgy,

Wark, E. E., and Wark, I. W., physical chemistry of flotation. VIII. Process of activation, B., 1043.

Wark, I. W., physical chemistry of flotation. VII. Trimethyleetylammonium bromide as a flotation agent, B., 698.

See also Wark, E. E. Warmoltz, N., second sheath near the [oxide-coated] cathode of an arc discharge [in rare gases], A., 1040.

Warneke, L., and Patterson, C. L., stabilised yeasted milk suspension, (P.), B.,

Warner, C. R. See Menkin, V.

Warner, D. K., art of uniformly freezing solutions in vacuum, (P.), B., 528.

Warner, E. D., Brinkhous, K. M., and Smith, H. P., blood-clotting: prothrombin fluctuations under experimental conditions, A., 1402. Warner, T. H., and Metal Alloys, Inc.,

[aluminium] alloy, (P.), B., 843. Warner, W. L., arc-welding of structural

alloy steels, B., 1210. Warner Brothers Pictures, Inc. See Jack-

man, F. W.

Warner Chemical Co. See Coleman, J. H. Warnke, C. J., and Adams & Westlake Co., [glass for] electrical sealed container [mercury switch], (P.), B., 595.

Warnock, R. M. See Poe, C. F.
Warr, W., prevention of coal-duexplosions in coal mines, (P.), B., 1030. coal-dust

Warren, B. E., Krutter, H., and Morningstar, O., Fourier analysis of X-ray patterns of vitreous SiO₃ and B₂O₃, A., 1054.

and Morningstar, O., X-ray analysis of vitreous B₂O₃, A., 1326. See also Gingrich, N. S., Hultgren, R.,

Simard, G. L., and Tarasov, L. P.

Warren, D. T., ultra-violet I2 fluoresoence. A., 1310.

See Pearson, J. W. Warren, E.

Warren, F. L., synthesis of 3-alkyl- and 3-aryl-quinolines, A., 1388.

See also Cook, J. W. Warren, G. W. See M.-O. Valve Co.

Warren, H., asbestos in electrical insulation, B., 26.

Warren, H. V., gold-bismuth occurrence in British Columbia, A., 1088. Distribution of silver in base-metal ores, B., 995.

Warren, L. A. Sec Tate, F. G. II.

Warren, W. B., carbonisation of coal; effects of variation of rate of heating during carbonisation of typical coking coal, B., 177. Warrentrup, H. See also Eucken, A., and Tammann, G.

Warrick, L. F., and Holderby, J. M., [pulp] waste utilisation and reduction of stream pollution, B., 830.

Wartenberg, H., platinum-gold difference in relation to the potential of indifferent electrodes in tissue pulp of potato tubers, A., 1164.

and Hey, A., electrometric determination of quality of potato tubers; redox potential of pulped tuber tissue, A., 1568.

Wartenberg, H. von, stability of an argillite inclusion in basalt, A., 584.

and Reusch, H. J., temperature of the Langmuir hydrogen flame, A., 278. and Wehner, G., temperature of the iron

thermite reaction, A., 947.

Warth, F. J., and Krishnan, T. S., sulphur and sulphate balance experiments with sheep, A., 887. Determination of sulphur for sulphur-balance experiments with cattle and sheep, A., 914.

Warweg, E., and Stearns, G., blood-phosphorus. V. Acid and enzymic hydrolysis of the acid-soluble organic phosphorus; phosphoglycerate fraction, A., 1401.

Warwick, W. N. See Cargo Fleet Iron Co. Was, D. A. See Haringhuizen, P. J.

Waser, E., tobacco and tobacco products, B., 395.

Washburn, E. R. See Mason, L. S. Washburn, R. G. See Krauss, II'. E. Washburn, T. S. See Miller, A. P.

Wasilewska, M. See Szperl, L.

Wasitsky, A. See Mayrhofer, A. Wasmuth, A. See Work, L. T. Wasserfuhr, H., modern road-building as an outlet for lignite-distillation tar and pitch, B., 455.

See also Darapsky, A. Wasserman. See Schischkin, K. N.

Wassermann, A., collision frequency in solution: kinetics of diene synthesis in solution and in the gaseous state, A., 685. Kinetics of a bimolecular association in benzene solution and in the gaseous state, A., 685. Mechanism of addition to double linkings. III. Molecular forces between benzoquinone and cyclopentadiene, A., 781. Kinetics of bimolecular associations in solution and in the gaseous state; mechanism of additions to double linkings. IV., A., 1074. Kinetics of an inverse diene synthesis in the pure liquid state, A., 1345.

See also Angus, W. R., and Khambata, B. S.

Wassermann, G., plasticity of metal crystals and its significance for the properties of metals, A., 1188. Differences in lattice constants, A., 1449. Hardening [in alloys], B., 278. Iron-nickel alloys with a cubic texture, B., 1156.

Wassmann, F., mineral content of German feeding-stuffs and the influence thereon of manuring and source; cereal and

sweet-lupin straws, B., 905.

Wasteneys, H. See Ignatieff, V. Wastl, H., effect of yeast and yeast extracts on intestinal motion, A., 516.

Wasum, L. W., and Crystalite Corp. of America, urea-formaldehyde condensation products, (P.), B., 1110.

Wataghin, G., properties of ultimate particles, A., 7. Interaction between protons and neutrons, A., 543.

Watanabe, A., iodide oxidation by complex metal salts, A., 805. Photochemical activation of oxidising action of complex metal salts, A., 808. Vital oxidation of plant cells by complex cobaltammines, A., 907.

See also Shibata, K. Watanabe, I. See Sakurada, I.

Watanabe, Kuniichi, biochemistry of carbo-XIV. Modified hydrates. Zuckerkandl-Klebermass method for determination of glucosamine; distribution of glucosaminase in ox tissue. XV. Determination of N-acetylglucosamine and its application to biochemical analysis, A., 1533. Watanabe, Kyôzô. See Abe, S.

Watanabe, Makoto, relation between natural tolerance to heroin and the partition coefficient of the drug for the central nervous system, A., 1145. Changes in partition coefficient in heroin habituation, A., 1145. Changes in partition coefficient of morphine by heroin habituation, A., 1145. Changes in partition coefficient of heroin by habituation. Α., morphine Change in partition coefficient of morphine by cocaine habituation, A., 1145.

Watanabe, Masaru. See Yoshida, U. Watanabe, Masatoshi. See Miyake, K.

Watanabé, S. See Kôzu, S. Watanabé, T. See Nitta, I. Watenpaugh, II. N., influence of the reaction of soil strata on root development of lucerne, B., 851.

Waterfall, F. D., treatment for producing a modified [rust-resisting] surface on

ferrous articles, (P.), B., 504.

Waterhouse, E. F. See Schoeller, W. R.

Waterman, A. T., the positive electron, A., 4. Waterman, H. E., [wood] perservatives, B., 62.

Waterman, H. J., Clausen, J. F., and Tulleners, A. J., complete deoxidation of resins by catalytic hydrogenation,

and Leendertse, J. J., polymerisation of unsaturated hydrocarbons, A., 310. Relation between the properties of lubricating oil and its chemical structure, B., 776.
Leendertse, J. J., Adam, L., and Vlodrop,

C. van, production of cyclic compounds by destruction of Rangoon paraffin at high temperature, B., 135.

Leendertse, J. J., and Do Hulster, J. polymerisation products of normal $(\Delta \beta_{-}^{2})$ pentene at high temperature, À., 186.

Leendertse, J. J., and Koelenschmid, W. A. A. B., polymerisation of pinene, A., 729.

Leendertse, J. J., and Makkink, J. P., physical constants of polymerisation products of unsaturated hydrocarbons, A., 961.

and Veldman, A. R., destructive hydrogenation of phenol-formaldehyde resins, B., 1056.

Veldman, A. R., and Coltof, W., preparation of [odourless phenol-aldehyde] synthetic resin compositions, (P.), B., 30.

and Vlodrop, C. van, comparative hydrogenation of different substances in one solution, A., 965. Polymerisation: industrial applications, B., 137. Catalytic polymerisation of fatty oils, B., 1215.

Waterman, H. I., Vlodrop, C. van, and Pezy, J. A., effect of varying conditions in the catalytic hydrogenation of fatty oils on the nature of the reaction product. III., A., 1487.

See also De Kok, W. J. C., Harberts, (Mile.) C. L., and Imperial Chem.

Industries.

Waterman, R. E., and Ammerman, M., crystalline vitamin- B_1 . V.. VI. Effect of graduated doses on growing rats and on pigeons, A., 118. See also Ammerinan, M.

Waterman, W. W. See Olin, H. L.

Waters, L., and Zürn, A., differentiation of butter made from pasteurised and unpasteurised creams by means of the peroxidase test, B., 168.

Waters, M. F., and Hanlon-Waters, Iuc., liquid and gas separator, (P.). B., 176.

Waters, R. M. See Schmidt, E. R. Waters, V. F., rate of drying of glassine and greaseproof paper, B., 365.

Waters, W. A., 3-nitro-4-aminodiphenyl-methane and its derivatives, A., 717. Kinetic study of the hydrolysis and

alcoholysis of phenyl acetate, A., 1074. Watkins, C. H. See Ernst, R. C. Watkins, G. B., and Libbey-Owens-Ford Glass Co., laminated glass, (P.), B., 103.

and Wampler, R. W., strength of flat glass under uniform load, B., 884. See also Ryan, J. D., and Wampler,

R. W.

Watkins, W. See Roberts, A. E. Watkins, W. E., and Mitchell, H. H.,

phosphorus requirement of the growing chicken: value of controlled experimental feeding, B., 1067.

Watkins, W. P. See Stone & Co., Ltd.,

Watmough, W. N., jun. See Wight, E. H. Wats, R. C., and Das, B. M., biochemistry of blood of normal and malaria-infected monkeys, A., 506.

Watson, B. B. See Du Mond, J. W. M. Watson, C. C., Arrhenius, S., and Williams, John Warren, physical chemistry of zein. A., 492.

Watson, Cecil J., origin of natural crystalline urobilin (stercobilin), A., 882.

Watson, Cyril J., and Godden, W., comparative digestibility of artificially-dried pasture herbage by sheep and rabbits, B., 394.

Watson, C. W. See Texas Co.

Watson, D. J., effect of potassium chloride on diurnal changes of carbohydrates of the potato leaf, A., 531. Effect of applying a nitrogenous fertiliser to wheat at different stages of growth, B.,

Watson, E. L., and Watson, M. E., furnace construction, (P.), B., 959.

Watson, E. M., iodine tolerance test for the investigation of thyroid function, A., 1565.

Watson, H. B. See Dippy, J. F. J., and

Morgan, V. G.
Watson, H. E., Kane, G. P., and Ramaswamy, K. L., dielectric coefficients of

gases. IV. Fluorides of boron, nitro-

gen, and earbon, A., 1446.

and Ramaswamy, K. L., dielectric coefficients of gases. III. Allene, allylene, butanes, butylenes, cyanogen, and hydrogen cyanide, A., 1446. Refractive index, dispersion, and polarisation of gases, A., 1447.

Watson, H. H., dust-free space surrounding hot bodies, A., 1198.

See also Whytlaw-Gray, R. Watson, J. L. See King, E. J. Watson, K. M., Nelson, E. F., and Murphy, G. B., characterisation of petroleum fractions, B., 132.

and Smith, R. L., generalised highpressure properties of gases, A., 1331. Wien, J. L., and Murphy, G. B., hightemperature viscosities of liquid petroleum fractions, B., 677.

Watson, (Miss) M. de B. See Anslow, (Miss) G. A.

See Watson, E. L.

Watson, M. E. Watson, R. E. See Bartlett, J. H., jun.

Watson, R. H. Sce Lose, J. E.

Watson, S. J., conservation of grassland herbage, B., 385. and Ferguson, W. S., nutritive value of

artificially dried grass and its effect on quality of milk produced by cows of the main dairy breeds, B., 520. Value of artifically dried grass, silage made with added molasses, and A.I.V. fodder on the diet of dairy cows: effect on quality of milk, with special reference to the value of the non-protein nitrogen, B., 856.

and Horton, E. A., composition, digestibility, and nutritive value of samples of grassland products, B., 251. Technique of digestibility trials with sheep and its application to rabbits, B., 618.

See also Gillam, A. E.

Watson, W., and Craddock, Q. L., uncombined lime in Portland cements, B., 21. Influence of catalysts in production of high-strength cements, B., 193. Specific heat of rotary-kiln gases at constant pressure, B., 991.

Watson, William, albuminoid ammonia determination [in sewage], B., 302. Activated-sludge research on the prac-

tical scale, B., 862.

Watson, W. H., y-transformation of electro-

magnetic fields, A., 7.

and Hurst, D. G., transparency of sodium and potassium films in the Schumann region, A., 1039. Alkali-metal films transparent in the Schumann region, A., 1309.

See also Tootal Broadhurst Lee Co.

Watson, W. W., mass ratio of hydrogen and deuterium from band spectra, A., 264. Mass ratios of isotopes from band spectra, A., 401. Fredrickson, W. R., and Hogan, M. E.,

jun., strontium deuteride and hydride

spectra, A., 267.

and Hull, G. F., jun., spectroscopie investigation of discharges at high gas pressure, A., 654.

and Shambon, A., spectrum of indium oxide, A., 1443.

and Weber, R. L., E band system of calcium hydride, A., 8.

See also Cornell, S. D., and Koontz, P. G.

Watson, Laidlaw & Co., Ltd., and Lamont, R. W., hydro-extractors, (P.), B., 578.

See also Aitken, G.

Watts, A. S., influence of firing time on properties of some whiteware bodies, B., 790.

See also Latimer, H. L. Watts, G. See Simon, Ltd., H. Watts, G. W. See Standard Oil Co. Watts, V. E., and Amer. Bitumuls Co., aggregates and fillers, (P.), B., 696.

Way, C. T., and Muntwyler, E., alkalosis, a clinical problem, A., 101.
Way, K., and Wheeler, J. A., comparison

of Majorana-Heisenberg and velocitydependent forces, A., 1442.

Way, W. J. R. See Jennings, J. S. Wayland, F., tanning of leather, (P.),

B., 383.

Waymark, D. H. See Gen. Electric Co.

Wayne, E.J. See Ungley, C.C.Weakley, C.E., jun., special head for Kjeldahl distillation apparatus, A., 1355. Fat-extraction apparatus for feeds, B., 1126.

Wean, R. J. Sco Wean Eng. Co.

Wean Engineering Co., Ltd., and Wean, R. J., [lead-, tin-, or zinc-]coated sheet metal [iron], (P.), B., 1212.

Weatherford, E., and Borden Co., [binder for] foundry core, (P.), B., 375.

Weaton, G. F., Najarian, H. K., Dowd, W. C., and St. Joseph Lead Co., recovery of zinc, lead, tin, and cadmium values [from metallurgical residues], (P.), B.,

Weaver, R. See Fifield, C. C. Weaver, W. E. See Gen. Electric Co. Webb, B. H., treatment of milk, (P.), B.,

714.Webb, C. N. Seo Hurd, C. D.

Webb, D. A., nitro-chromic reaction and its application to the determination of small quantities of alcohol, A., 1091. See also Fearon, W. R.

Webb, D. H., Jennings, D. S., and Peterson, J. D., effect of replaceable bases on physical properties of soils, with reference to effect of replaceable calcium and sodium on index of friability, B., 291.

Webb, H. W. Sce Schoeller, W. R., and Sinclair, D.

Webb, J. H., summation of different colour radiations by a photographic emulsion, B., 299.

Webb, J. K. See Standard Telephone & Cables.

Webb, R.W. See Murdoch, J. Webber, C.S., and Fiberloid Corp., [plasticiser for cellulose ester] composition, (P.), B., 1006.

Sec also Eastman Kodak Co.

Weber, A. L. See McLean, H. C. Weber, A. P., influence of crystalline hormones on growth of certain veasts, A., 896. Disintegration of filter paper by calcium nitrate solution, B., 313. See also Bertrand, G.

Weber, C. G., and Geib, M. N. V., treatment of offset papers for optimum register, B., 405.

Shaw, M. B., and Black, E. A., effects of fumigants on paper, B., 231.

Weber, \breve{D} . U., electrical installations in places where there is danger of explosions; carrying out of regulations (VDE 0165) for erection of electrical installations in workshops and storehouses according to present state of electrotechnics, B., 1050.

Weber, E. See Siebel, E.

Weber, Edgar. See Helferich, B.

Weber, G. F., direct effect of Bordeaux mixture on early cucumber production, B., 115.

See Scholder, R. Weber, H.

Weber, H. C. See Universal Oil Products

Weber, H. H. See Haumann, W.

Weber, H. M. See Karrer, P. Weber, I. E. See Laporte, Ltd., B.

Weber, J. See Horn, V. Weber, K., rôle of oxidation-reduction potential and acidity in quenching of fluorescence in solutions, A., 11. Catalysed photo-reduction of vat dycs, A., 300. Inhibition of the fluorescence of methylene-blue by ferrous salts, A., 778. Theory of desensitisation, A., 808. Photochemical bleaching of chlorophyll, A., 867. Photochemical reaction chlorophyll with ferrous ions, A., 907. Dependence of absorption of filter glasses on temperature, B., 1093.

Weber, R. H. R., processes of technical magnetisation. I. Weiss' theory of the technical magnetisation curve, A., 275.

Weber, L. A. See Woglom, W. H. Weber, L. I., action of calcium salts on living tissue, A., 1550.

and Lederer, F., influence of monoand poly-hydric alcohols and monoand poly-saccharides on the absorption of fluid by gels, A., 796.

Weber, P. See Hass, H. B.

Weber, R. L. See Watson, W. W.

Weber, U., fat metabolism of germinating pumpkins, A., 1569.

Weber, IV., decomposition of nicotine by fermentation of tobacco, A., 534. See also Busch, M., and Hämmerle, W.

Weber, IV. C., and Dorr Co., grit-removal apparatus [for sewage], (P.), B., 174.

Webre, A. L., temperatures in vacuum pans [for boiling massecuites]; advantages of mechanical circulation, B., 1119. Growth of sugar crystals in vacuum pans, B., 1224.

Webster, D. C. See Sage, B. H. Webster, H. G., and Winuett, J. W. G., polymerisation of nickel earbonyl, (P.), B., 834.

Webster, J. E., Anderson, Ernest, and Cross, F., chemical and enzymic studies of the uneven ripening of Concord grapes, A., 1432.

Webster, K. C. Sce Cox, E. G.
Webster, M. D., and Bernheim, F.,
oxidation of amino-acids by Bacillus pyocyaneus (Pseudomonas aeruginosa), A., 899.

Webster, R. L., and Marshall, James, arsenic deposit and codling-moth control, B.,

Wechsberg, R. See Klemenc, A.

Weckel, K. G., Jackson, H. C., Haman, R., and Steenbock, II., effect of different sources of radiant energy on flavour and antirachitic potency of milk, B., 810.

See also Beck, H. H.

Wecker, J., copper-base alloy, (P.), B.,

Wedekind, E., pigment of ebony wood, A., 207. Properties and mode of application of beech cellulose, B.,

and Müller, O., new constituent of beechwood, A., 124. Beech lignin, A., 994.

See also Möbius, K.

Wedel, C. J. R. H. von. See Spanner, H.J.

Wedell, K. See Labes, R. Weden, II. See Starkenstein, E. Wee, H. J. A. ter. See Blok, C. J.

Wee, J. C., preparation of oil-soluble resin from polyhydric alcohol and polybasic acid, B., 205.

Weech, A. A., Goettsch, E., and Reeves, E. B., nutritional edema in the dog. II. Hypoalbuminæmia and the augmentation of tissue fluid, A., 366. Relationship between sp. gr. and protein content in plasma, serum, and transudate from dogs, A., 495.

Weed, A. Sco Hoyer, D. G.

Weed, F., concentrating chromite ores, (P.), B., 1048. Concentrating iron ores, (P.), B., 1048. and Ellis, E. E., concentrating non-

sulphide minerals by froth flotation, (P.), B., 1048. Flotation of manganese ores, (P.), B., 1048.

Weed, J. M. See Gen. Electric Co. Weed, L. A., and Hamilton Labs., germicide, (P.), B., 1130.

Weed, L. II., forces concerned in the absorption of the cerebrospinal fluid, A., 1405.

Weedon, H. W. See Notevarp, O.

Weekers, R., rôle of the liver in the mechanism of uranium glycosuria, A., 627. Urinary excretion of phosphorus during experimental poisoning by uranium nitrate, A., 635. Effect of uranium nitrate on insulin hypoglycemia and glycolysis in the blood, A., 889.

Weekes, D. F., Livingston, M. S., and Bethe, H. A., determination of the selective absorption regions of slow

neutrons, A., 541.

Weel, P. B. van, periodicity in the metabolism of the pancreas of the white mouse during recovery [from pilocarpine injection], A., 1016.

Weeldenburg, J. G. See Koch, T. Weerden, W. J. van. See Beintema, J., and Terpstra, P.

Weevers, T., phytochemical problems, A.,

Wefelscheid, H., new viscosity tester for fats, B., 846.

Wegler, R., and Frank, W., fission of tertiary amines by nitrous acid, A.,

Wehnelt, A., and Schilling, W., electronmicroscopic investigations of electron emission from cold metals, A., 263.

Wehner, G. Sco Le Blanc, M., and Wartenberg, H. von.

Wehrle, L. P., olive Parlatoria (P. olea, Calvée) in Arizona. II. Economic II. Èconomic significance and control, B., 853.

Wehrli, M., end-isotope effect for triatomic molecules, A., 267. Intensity distribution in band spectra of diatomic molecules, A., 404. Spectra of tellurium halides, A., 1443. See also Robert, C.

Wehrli, S., drop-plate for observation of turbidity in the dark field, A., 697.

See also Mezener, M.

Wei, P. II., structure of a-quartz, A., 783.

Wei, T. C. See Liu, Y. P.
Wei, W. C. See Leo, S. T.
Wei, Y. S., and King, C. K., neutralisation of d-glutamic acid hydrochloride and crystallisation of sodium d-glutamate during manufacture of glutamate condiments, B., 393.

Weibel, R. Seo Cherbuliez, E. Weibke, F., systematic consideration of

the bronzes, B., 501.
Meisel, K., and Wiegels, (Frl.) L., phase diagram of the system silver-

gallium, A., 419.
See also Biltz, W., Hülsmann, H., and Wiehage, G.

Weichherz, J., and Pletenjeva, N., emulsions. V. Heterogeneous regions of the sodium oleate-phenol-xylene-water system and the corresponding binary and ternary systems, A., 562.

Weicker, B., adrenaline and the metabolic activity of the warm-blooded heart, A.,

Weicówna, B. Sce Krasżewski, W.

Weidenbaum, B. See Stewart, T. D.

Weidenhagen, R., preparation of crystalline aldonolactones, A., 55. Synthesis of benziminazole derivatives, A., 1523. Relations between vitamin-C and enzymic fission of carbohydrates. II., A., 1555.

[with Renner, A.], separation of β -h-fructosidase [invertase] from yeast

autolysates, A., 1555.

and Herrmann, Roland, 4(5)-amino-5(4)methylglyoxaline, A., 211. Glyoxaline scries, A., 1125.

and Lu, R., relations between vitamin-C and enzymic fission of carbohydrates. I., A., 1555.

and Renner, A., specificity of galactosidases, A., 637.

Weidenhammer, L. See King, C. V.

Weider, C. F. See Samdahl, B.

Weidlich, H. A., carcinogenic chemical

compounds, A., 504.

Weidmann, H., and Amer. Lurgi Corp., copper sulphate, (P.), B., 593.

and Roesner, G., pure sulphur dioxide, B., 368.

Weidmann, U., determination of rice husk in rice feeding-meals and other feedingstuffs, B., 569.

Weidner, R. See Claus, Willi.

Weigand, S. A. See Bolton, J. W.

Weigel, C., light-weight clay product, (P.), B., 147.

Weiger, J. A. See Taylor, C.

Weigle, J., width of the Ka, line of molyb-

denum, A., 538. Weihe, F. A., jun., and McAleer Mannig. Co., anticorrosive solution, (P.), B., 1046.

Weihe, H. D., and Jacobs, P. B., determination of formic acid in pyroligneous liquors, B., 305.

Weil, G. P., and Anselme, C., acid value of officinal oils and waxes; the lime-wateroil liniment of the Belgian Pharmacopœia. IV., B., 1054.

Weil, Leopold, enzymic histochemistry. 11. Micro-method for determination of

tryptic activity, A., 244.

and Ely, J. O., enzymic histochemistry. 1. Distribution of arginase activity in rabbit kidney, A., 379.

Weil, Louis. See Bruhat, G.

Weil-Malherbe, H., brain metabolism. I. Glutamic acid, A., 631. Carbohydrate metabolism, A., 1545. See also Dickens, F.

Weiland, H. J. See Du Pont de Nemours & Co., E. I.

Weiler, J. See Kappler, E.
Weiler, J. E., retarding the setting time of Portland cement, (P.), B., 456.

Weiler, J. F., exhaustive chlorination of a bituminous coal, B., 864. Weilguny, O. See Heller, K.

Weill, P., and Kayser, F., catalytic hydrogenation of some epoxides, A., 1104.

Weiller. See De Lavergne, V. Weiller, P. G., and Swedish Iron & Steel Corp., carbonising ferrous metal [sheet for radio-valves], (P.), B., 280.

Wein, K. See Jantsch, G.

Wein, S., and Radio Corp. of America, photo-electric tubes, (P.), B., 798.

Weinbach, A. P., formation of milk sugar; in-vitro synthesis of lactose by active mammary gland preparations, 1024.

Weinberger, E., bilifuscin, A., 501. Dialysis, (P.), B., 1024.

Weinbrenner, E. See Reihlen, H. Weindling, S., and Fawcett, H. S., control of Rhizoctonia damping-off of citrus seedlings, B., 807.
Weiner, D. O., Rowlette, A. P., and Elman,

R., significance of loss of serum-protein in therapy of severe burns, A.,

Weiner, N. See Michael, A.

Weiner, R., theory of electrodeposition of chromium, with special reference to phenomena at base metals. II., B., 997. Theory of electrolytic chromium plating. I., B., 1044.

See also Karshan, M.

Weingaertner, E., sorption equilibria of methane, ethane, and propane with active carbon above and below the critical temperature, A., 1195.

Weinges, F., tamping of blast-furnace foundations and boshes with coke, B.,

Weinhouse, S. Sec Kharasch, M. S.

Weinkopf, M. See Eisler, O. Weinland, C. E., graphical method of calculating heat loss through furnace walls,

Weinmann, II., influence of potassium ions on growth of summer barley, B.,

Weinmann, J. See Fantl, P. Weinmann, K. See Breuer, G. Weinmayr, V. M. See Du Pont de Nemours & Co., E. I.

Weinrich, W., and Gaspari, H., adiabalic

calorimeter, A., 1083.

Weinstein, C. See Markin, B.

Weinstein, C. V. See Müller, R. L.

Weinstein, P., significance of vitamin-C in

biological oxidation processes of the human lens, A., 1429.

Weinstein, R. See Bacharach, G. Weinstein, S. S., and Wynne, A. M., pancreatic lipase. I. and II. Influence of various compounds on the hydrolytic

activity, A., 378.

Weinstock, H. H., jun., and Fuson, R. C., phenyl mesityl diketone [2:4:6-trimethy! benzil], A., 1254. Interconversion of mixed benzoins, A., 1512.

Weintroub, S., intensities in the principal series of lithium, A., 1039.

Weir, A. R., abnormal vapour pressures in potassium chloride solutions, A., 678. Thermodynamic study of systems of the type PbCl₂-RCl-H₂O at 25°, A., 682. Polarographic studies with the dropping mercury cathode. LIX. Anomalous curves of certain potassium chloride solutions, A., 1072.

Weir, C. E. See Shereshefsky, J. L. Weir, J. W. See Texas Co.

Weir, W. J. See Crisp, W. S.

Weis, J. II., and Feldspathic Res. Corp., ceramic flux, (P.), B., 990.

Weisberg, L., Bek [gold-plating] process, B., 1100.

Weiser, H. See Wenzel, F.

Weiser, H. B., and Gray, G. R., mechanism of coagulation of sols by electrolytes. V. Sulphur sol, A., 157.

Weiser, H. B., and Milligan, W. O., constitution of hydrous oxide sols from X-ray diffraction studies, A., 287. Constitution of hydrous oxide gels and sols, A., 287.

Milligan, W. O., and Ekholm, W. C., mechanism of dehydration of calcium sulphate hemihydrate, A., 1078.

Weisman, A. I., Coates, C. W., and Moses, R. L., presence of cestrogenic hormones in the ova and ovaries of fish, A., 1564.

Kleiner, I. S., and Allen, E., cows' milk as possible excretory source of anterior pituitary-like hormone, A., 251.

and Yerbury, C. C., hormone content of saliva, A., 880.

See also Kleiner, I. S.

Weiss, E., and Arnold, L., specificity of the complement fixation test for amæbiasis. A., 1532.

Weiss, Ernst. See Heberlein & Co., Akt.-Ges. Weiss, F., grinding and polishing of light metals, B., 1099.

Weiss, Hermann, digestion of fats from crude plant tissues: digestion of closed plant cells and their importance for physiology and pathology of digestion în man, A., 510.

Weiss, Hugo, and Reich, O. R. von, bleaching of undyed cotton and other cellulosic

fibres, (P.), B., 638.

Weiss, J., photochemical reactions connected with quenching of fluorescence of dyes by ferrous ions in solution, A., 11. "Photosynthetic unit" in the assimilation process of green plants, A., 1034. Photo-reduction of fluorescent substances by ferrous ions, A., 1077. Photo-reduction of fluorescent substances by visible light, A., 1215,

and Fischgold, H., photochemical reactions of SH-compounds in solution, A., 171. Mechanism of quenching of fluorescence in solutions, A., 793.

See also Hughes, E. D., Juliusburger, F.,

and Topley, B.

Weiss, J. M., and Davis Emergency Equipment Co., oxidising catalyst [for carbon monoxide], (P.), B., 102.

and Weiss & Downs, Inc., synthetic resin, (P.), B., 511. See also Weiss, R. P.

Weiss, L., cold-deformation of metals and its influence on the quality of aluminium [sheet], B., 1159.

Weiss, P., quantisation of a theory arising from a variational principle for multiple integrals with application to Born's

electrodynamics, A., 1448. Weiss, R. P., Weiss, J. M., and Weiss & Downs, Inc., amine of high colour stability, (P.), B., 1032.
Weiss, S. See Capps, R. B.

Weiss & Downs, Inc. See Weiss, J. M., and Weiss, R. P.

Weissbach, R., soap, (P.), B., 1004. Weissberg, G. Sec Vilenski, B. A. Weissberg, S. G., and Kruger, P. G.,

deep terms in ions of the isoelectronic sequence Cli to MnIX, A., 1309.

Weissberger, A. Sec Blount, B. K., and Hampson, G. C.

Weisskopf, I'. See Kemmer, N. Weissmann, G. A., micro-determination of hydrocyanic acid in medicinal preparations, B., 714.

and Bermann, R. J., determination of organically-bound phosphoric acid in phytin and medicaments, B., 523.

Weissweiler, A., determination of explosion limits of chlorine-hydrogen mixtures, A., 1208.

Weittenhiller, H., production of sulphuric acid from hydrogen sulphide in coke-

oven gas by catalysis, B., 625. Weitz, E., and Müller, Ludwig, ammonium character of tetra-arylhydrazines. II. Ammonium character of tetra(dimethylaminophenyl)hydrazine, A., 199. Weitz, R. See Maheu, J.

Weitzel, C. F., Potts, H. G., Underwood, J. E., and Pennsylvania Salt Manufg. Co., chlorination [of wood pulp], (P.), B., 96.

Weitzenkorn, J. W., surface coating [of

steel] castings, (P.), B., 281. Weizmann, (Miss) A. See Bergmann, E. Weizmann, C., yeast or protein preparations

[for nutritional purposes], (P.), B., 951. and Bergmann, E., Grignard reactions with ethyl β -chloropropionate. I., A., 705. Methoxylated o-benzoylbenzoic

acids, A., 849.
Bergmann, E., and Bergmann, Felix, Grignard reactions with phthalic an-

hydride, A., 71.

Bergmann, E., and Hirshberg, Y., photochemical deamination of aminoacids in water solution, A., 1349.

Blum-Bergmann, (Mrs.) O., and Bergmann, Felix, reaction of Grignard reagents with some succinic anhydrides, A., 70.

Weizsäcker, C. V. von, decisive forces in structure of the atomic nucleus, A., 133. Dependence of nuclear forces on spin, A., 1316.

Weizsäcker, W., thermal conductivity of gases with free convection, A., 1331. Welch, A. D. See Roepke, M. H.

Welch, A. De M. See Mawson, E. H. Welch, E. B., and Firth-Sterling Steel Co.,

hardmetal composition, (P.), B., 154. Welch, M. B., shrinkage of wood. II., B., 1042. Effect of chemical solutions on some woods, B., 1042.

Welch, M. S. See Irving, L., and Manery, J. F.

Welch, O. Sec Simon, Ltd., H. Welch, R. C. See Doan, F. J.

Welcome, C. J. See Batten, II. M. Weldon, L. II. P., and Wilson, Christopher L., preparation of partly deuterated benzenes, A., 195.

Wellard, R., influence of preheating on oxidation and ignition of hydrocarbons, B., 1029.

Wellcome Foundation, Ltd., and Timmis, G. M., ergometrinine, (P.), B., 716.

Ergometrine, (P.), B., 716.

Weller, D., Overholser, M. D., and Nelson, W. O., effect of æstrin on the prostate gland of the albino rat and mouse, A., 1427.

Weller, G. See Binet, L.

Weller, R., resin formation in light fuels, B., 179.

Weller, S. L. See Du Pont de Nemours & Co., E. I.

Weller, W. H., jun. See Kennedy, A. M. Welles, E. See Solacolu, T. Wellhousen, H. See Woods, E.

Wellington, M. S., activated carbon applied to a [water] reservoir, B., 397.

Wellmann, O., indigenous hays, their content of protein, calcium, magnesium, phosphorus, and vitamin-D, B., 122.

See also Marck, J.

Wells, A. A. See Standard Oil Development Co.

Wells, A. K., petrographic nomenclature, A., 1356.

Wells, A. Y., and Sherwood, N. P., selective action of dyes and of other disinfectants on bacteriophage, A., 1424. Selective action of gentian-violet on enzymes, A., 1420.

Wells, C. See Walters, F. M., jun. Wells, E. H. See Raiford, L. C.

Wells, F. B., and Allen, C. F. H., 2:4dinitroaniline, A., 462.

Wells, L. J., effects of cestrin injections on accessory reproductive organs of the male ground squirrel (Citellus tridecemlineatus), A., 901.

Wells, P. A., Moyer, A. J., and May, O. E., citric acid fermentation. I. Carbon balance, A., 897.

See also May, O. E. Wells, S. D., Paulson process for spent sulphite[-cellulose] liquor utilisation, B., 57. Production of nodules [in paper stock], (P.), B., 270.

and Alsted, L. L., removing bleachable pigments from paper containing lignocellulosic constituents, (P.), B., 270. Treatment and handling of paper pulp and similar fibrous materials,

(P.), B., 1088. Muggleston, G. D., and Alsted, L. L., paper pulp, (P.), B., 1088.
Wells, W. F., bacterial analysis of gascous

bodies, (P.), B., 1070.

Wells, W. G., Hodge, L. M., and Cowdry,
W. A. R., Queensland cotton-research station, Belvela; progress report, 1933—

34, B., 35. Wells, W. H., and Hill, E. L., structures of light nuclei and the existence of

Be, A., 919.

See also Williams, J. H. Wells, W. T., and Technicraft Eng. Corp., heat-exchange apparatus, (P.), B.,

Welsh, M. J., and Gray Processes Corp., colourless doctor-sweet gasoline, (P.), B., 917.

Welter, G., yield limits and tensile strength of mild steel and other metals, B., 374. Upper and lower yield points and breaking strain [of metals], B., 502. Elastic limit and micro-deformations under dynamic bending stresses of con-structional materials at high temperatures, B., 1156.

Welter, I., plaster moulds for roofing tiles, B., 934.

Weltzien, W., dyeing of artificial silk, B.,

and Buchkremer, J., measurement of adhesion in artificial silk by means of supplementary apparatus for Krefeld tension-meter, B., 1085.

and Ottensmeyer, H., surface tension of fatty acid condensation products and sulphonated fatty alcohols, B., 892.

Welwart, paraffin and mineral oil cancer, A., 1539. Apparatus for determination of the unsaponifiable matter in fats. oils, waxes, and fatty compositions of all kinds, B., 799.

Wemhoener, E. E., and Universal Boiler

Filter Corp., filter, (P.), B., 962.
Wemple, F. V. See Clewell, J. H.
Wen, I. C., Chang, H. C., and Wong, A.,
tissue-acetylcholine. IV. Cytology of chorionic villous epithelium of the human placenta, A., 1535.

Wen, S. P. See Hohorst, G., and Wang, H.H.

Wen-Po, W., atomic forces of solid states. I.—III., A., 1052, 1185.

Wenck, P. R., Peterson, W. H., and Fred, E. B., chemistry of mould tissue. IX. Cultural factors influencing growth and sterol production of A. fischeri, A., 112.

Peterson, W. H., and Greene, H. C., chemistry of mould tissue. VIII. Innate factors influencing growth and sterol production of Aspergillus fischeri, A., 112.

Wenczek, C., [perforated] building material, (P.), B., 150.

Wendeborn, B. A., deposits of lead ores in the state of Minas Geraes, A., 308.

Wendeborn, H. B., suction-draught sinter process and its application to cement burning, B., 596.

Wendel, F., influence of the amount of diastase on the alcohol yield from rye, B., 1064.

Wenderlein, H. See Stern, A. Wendlandt, R. See Caro, N. Wendler, A. F., and Du Pont Cellophane Co., shredder, (P.), B., 961.

Wendling, T., condensation of acetaldchyde with ethyl a-methylacetoacetate, A., 1092.

See also Gault, H.

Wendt, Georg von, newly-discovered nutritional factor in milk, A., 392. Cattle feeding and public health, B.,

Wendt, Gerhard. See Kuhn, R.

Wendt, H., changes in carotene-vitamin-A economy in myxœdema and in cretins, A., 1303. Treatment of Basedow's disease with large doses of vitamin-A (Vogan), A., 882.

Wendt, H. D., and Milk Processes, Inc., butter, (P.), B., 297. Cream process, (P.), B., 297.

Wendt, L. See Bamberger, P.

Wenger, P., Cimerman, C., and Rzymow-ska, C. J., micro-determination of potassium, A., 812.

Cimerman, C., and Tschanun, G., electrolytic micro-determination of zine and its application to brass, A., 1352.

See also Cimerman, C.

Wenig, K., and Joachim, J., influence of insulin on the lymph-sugar of the silkworm (Bombyx mori), A., 1013.

Wenk, F., instruments for registration of vapour pressure [of water] and specific

humidity, A., 447. Wenker, H., preparation of ethyleneimine from ethanolamine, A., 194.

Wense, T. See Bayer, G. Wensel, H. T., recent revisions of high temperatures, A., 581.

Went, F. W. See Smit, A. J. H.

Went, S., and Lissak, K., rôle of choline in removable shock in the guinea-pig's heart, A., 1414.

Wentrup, H., desulphurisation of pig iron and general laws governing desulphurisation of iron, B., 741. Desulphurisation of pig iron by manganese, B., 887. Wentz, W. W. See Aluminum Co. of

America.

Wenusch, A., nornicotine, A., 488. Hydrogen sulphide in tobacco smoke, B., 44. Classification of tobaccos, B., 298. Accumulation of nicotine in the butt of cigarettes made with oriental tobacco, B., 298.

Wenusch, A., determination of nicotino in tobacco smoke, B., 1177.

and Molinari, E., nitrate content of tobacco, B., 1233. and Schöller, R., "free" nicotine in

tobacco, B., 906. See also Späth, E.

Wenzel, F., and Weiser, H., Hodonin petroleum. I. Relations of naphthenic

petroleums to terpenes, B., 226. Wenzel, R. N., resistance of solid surfaces

to wetting by water, B., 1071. Wenzke, H. H. See Curran W. J.

Wenzl, R., improvement of the heat economy of the heat economy and vapour separation in [spent-]grain driers; new method using the grain-vapour condenser, B., 565.

Werder, F. von. See Windaus, A. Werder, J. F., and Rogers, E., lubricant,

(P.), B., 309.

Werkman, C. H., Rayburn, C. H., Hixon, R. M., and Iowa State Coll. of Agric. & Mech. Arts, producing products of fermentation, (P.), B., 72.

See also Hammer, B. W., Mickelson, M., Nelson, M. E., Osburn, O. L., Stone, R. W., and Wood, H. G.

Werle, E., and Hürter, J., ornithocallicrein. I., A., 891.

and Roden, P. von, occurrence of callicrein in salivary glands and saliva, A., 1303.

See also Frey, E. K., and Reeke, T. Werley, G. L. See Broughton, W. W.

Werner, A. See Bünger, II.
Werner, A. M., apparatus for purifying alcoholic liquors, (P.), B., 614.

Werner, A. R., rôle of bios in the biology of fungi of the genus Fusarium, A., 523. Biological activators of Azotobacter, A.,

Werner, G. See Parhon, C. I.

Werner, H., salts for prevention of winter frost [in streets, etc.], B., 596. See also Schmalfuss, H.

Werner, O., detection of metallographic processes by radioactive methods, B.,

Werner, Rudolph, disinfection of water by oligodynamic action of silver, B., 46.

Werner, Ruth, dangers to drying felt on paper machines and methods for decreasing them, B., 783.
Wernimont, G., and De Vries, T., deter-

mination of the zirconium-hafnium ratio, A., 180.

Werre, J. P.Sec Schreinemakers, F. A. H. Werring, W. W. See Electrical Research Products.

Wertenstein, L., adsorption of radium emanation at low temperatures, A.,

See also Herszfinkiel, H.

Werth, F., washing media, (P.), B., 1216. Wertheim, E., orthanilic acid (aniline-osulphonic acid), A., 462.

Wertheim, H. See Liebesny, P. Werthessen, N. T. See Pincus, G.

Wesche, H. See Marx, K.

Wescott, B. B., and Bowers, C. N., economical selection of sucker rods, B., 993.

Wesemann, F., constructional and operation data of open-hearth [steel] furnaces with mixed-gas heating, B., 792.

Wesley, W. A., oxidising agents for nickel solutions, A., 948.

Wesolowski, K. See Broniewski, W., and Jagielski, A.

Wesp, O., comparison of Rumanian fuel and engine oils, B., 484.

Wespy, C. R. C. C., and Padberg, C., zinc sulphate and iron oxide, (P.), B., 789.

Wessely, F., Isemann, W., Singer, Gustav, and Schönol, K., bitter principles of calumba root. II. Columbin, A., 610.

Münster, A., and Schönol, K. [with Isemann, W.], bitter principles of calumba root. IV. Hydrogenation of

columbin and isocolumbin, A., 1515.
Schönol, K., and Isemann, W., bitter principles of calumba root. III. Palm-

west, C. D., crystal structure of [Rh(NH₃)₅Cl]Cl₂, A., 16.

West, C. E., dust-proofing coal, B., 1174.

West, D. H. [with Hopkins, B. S.], rare conthe. earths. XLV. Preparation of rare-earth amalgams by displacement, A., 39.

West, D. W. Sec Levy, L. A.

West, E. See West, F. J., and West's Gas Improvement Co.

West, E. S., apparatus for sugar and other titrations, A., 305.

See also Moore, C. V., Ney, L. F., and Scott, M.

West, Eric S., and Howard, (Sir) A., effect of green manuring on the water-

holding capacity of soils, B., 514. West, F. J., West, E., and West's Gas Improvement Co., Ltd., vertical retorts for carbonisation of coal, etc., (P.), B., 484.

See also West's Gas Improvement Co. West, J. H., tubular apparatus for transfer of heat between fluids, (P.), B., 79.

West, R., pharmacology and therapeutics of curare and its constituents, A., 892. See also Flood, C.

West, S. S. See Hughes, A. L.

West, W., and Edwards, R. T., infra-red absorption of hydrogen chloride in nonionising solvents, A., 545. West & Co., Ltd., and

Babler, E., scaling of electric conductors into glass or similar material, (P.), B., 508.

West End Chemical Co. Sec Hellmers, H. D. West's Gas Improvement Co., Ltd., West, F. J., and West, E., vertical retorts for carbonisation of coal and similar materials, (P.), B., 627, 967. See also West, \hat{F} . J.

Westall, R. G. Sec Vickery, H. B. Westbrook, L. R. See Grasselli Chem. Co.

Westeott, C. H., and Niewodniczanski, H., experiments with neutrons slowed down at different temperatures, A., 5. See also Arsenjeva-Heil, A.

Westeott Electric Casting Corporation. Sec Hoke, W. W. Westell, E. P. L. Sec Gen. Electric Co.

Westen, H. A. van. See De Kok, W. J. C. Westenbrink, H. G. K., physiological action of vitamin-B₁, A., 118. Intestinal phosphatase, A., 380. Relation of rate of absorption of glucose to body-weight and surface, intestinal weight, and content of intestinal phosphatase in rats; influence of diet on the phosphatase content of the intestine, A., 629. Relative velocities of the absorption of different sugars from the intestine of rat and pigeon, A., 1144.

and Middelbeek, A., correlation between rates of intestinal absorption of some

simple sugars , A., 1144.

Westerfield, E. C., and Pietenpol, W. B., nuclear structure and the negative

proton, A., 1175.

Westerlund, A., fat and calcium metabolism. II. Effect of tributyrin on exerction of calcium by the intestine in the growing rat. III. Influence of butter and margarine on fæcal output of calcium in full-grown rats, A., 235, 890. Numerical analysis of Lars Spildo's investigations into the calcium metabolism of growing swine; frecal calcium elimination and

calcium absorption, A., 756.

Western Cartridge Co. See Olsen, F.,
Schuricht, A. G., Seavey, F. R., and
Wagner, W. E.

Western Condensing Co. See Chuck, F. Y., and Peebles, D. D.

Western Electric Co., Inc., and Arkema, H. P., means for annealing material [metal], (P.), B., 601.

and Haines, L. B., hard rubber [ebonite]

coating, (P.), B., 1221. and Heinicke, H. M. E., apparatus provided with protective coating for handling molten metal, (P.), B., 603.

and Larsen, L. O., cleaning of non-ferrous alloys [brass or bronze], (P.), B., 376. McMullan, S., and Strang, E. S., non-ferrous alloy sheets and strips, (P.),

B., 415. and Roberts, R. T., leaded brass, (P.), B., 416.

and Scott, Walter J., ceramic[-coated]

articles, (P.), B., 990. Scott, Walter J., and Mason, S. R., ceramic[-coated] articles, (P.), B., 990. Worrell, W. P., and Gruber, F. E.,

composite [resinous sheet] articles, (P.), B., 464.

Western New York Club, grinding losses on stone and roller mills, B., 623.

Western States Machine Co., centrifugal basket, (P.), B., 224. See also Roberts, Eugene.

Westfalia-Dinnendahl-Gröppel Akt.-Ges., and Geworksehaft Sophia-Jacoba, gravity concentration processes for wet separation of coal, êtc., (P.), B., 582.

Westgren, A., composition and crystal structure of trigonal chromium and manganese carbides, A., 1054.

See also Arnfelt, H., and Lindqvist, M. Westheimer, F. H. See Kohler, E. P. Westhoff, E. W., aluminium alloy, (P.), B.,

Westinghouse Electric & Manufacturing Co., and Brace, P. II., copper alloy, (P.), B., 1212.

and Ford, J. G., corrosion-resistant product [oil for transformers], (P.),

and Goff, J. T., forming electric insulating material, (P.), B., 377. and Halliwell, G. P., high-strength alloy,

(P.), B., 1101.

Hensel, F. R., and Larsen, E. I., copper alloys, (P.), B., 1212.
and Hunt, M. H., [electric] insulator,

(P.), B., 157. and Levy, C. C., system for precipitation of solid particles from gases, (P.), B., 605. Precipitator, (P.), B., 605.

and Long, T. H., induction furnace circuit, (P.), B., 156. [Electric] induction heater, (P.), B., 156. and Lowry, E. F., coating a filament with oxide, (P.), B., 107.

and Mains, G. H., [composite] moulded product, (P.), B., 111.

Westinghouse Electric & Manufacturing Co., Roth, W., and Kerin, F. X., [annealing] furnace, (P.), B., 998.

and Scott, H., high-temperature thermostatic metal, (P.), B., 416. Bimetal thermostat, (P.), B., 1047.

and Ulrey, D. L., tungsten seal [for electric-dischargedevices], (P.), B., 106. and Woodson, J. C., electric furnace, (P.), B., 1001.

Westinghouse Lamp Co., and Chandler, A. F. B., clad metals [for X-ray targets], (P.), B., 26.

and Dietz, E., getter for incandescence lamps, (P.), B., 507. and Driggs, F. H., precipitation of tungstic oxide, (P.), B., 145. Clad metals, (P.), B., 1103.

and Hankins, T. J., jun., heat-treatment [sintering] of metals [tungsten], (P.), B., 843.

Linder, J. A., and De Gaugue, C. L. E., jun., [electric] glow-indicator lamp, (P.), B., 1052.

and Meister, G., [fluorescent] crayon, (P.), B., 943.

Westman, A. E. R., packing of particles: empirical equations for intermediate diameter ratios, B., 623.

and Ontario Res. Foundation, ceramic

ware, (P.), B., 61.

Westmeyer, R., behaviour of bitumen cutbacks in practical road construction, and laboratory investigations into probable causes of failure, B., 61.

Weston, R. S., problems of deferrisation and demanganisation [of water], B., 910. Weston, W. A. R. D., sporulation of Helminthosporium avenæ and Alternaria

solani in artificial culture, A., 639. Westphal, O. See Freudenberg, K.

Westphal, U., sterols and bile acids, A., 1248. and Schmidt-Thomé, J., ∆5-pregnene-3:20-dione, an isomeride of progesterone, A., 727.

See also Butenandt, A.

Westvaco Chlorine Products, Inc. Sco Derick, C. G., and Nichols, W. T.

Wetherbee, H. E., Grant, B. H., and Grant, R. F., treatment of aluminium surfaces, (P.), B., 1102.

Wetherell, S., determination of lead in official [B.P.] compounds and preparations, B., 76.

Wetherill, C., purification of air and gases, (P.), B., 1185.

Wetmore, W. L. See Littleton, J. T. Wetroff, G. See Moureu, H.

Wetter, J. W., apparatus for crushing coal, ores, rock, and other minerals, (P.), B., 816.

See also Shiley, E. C. Wettig, E., firing of tin glazes, B., 789.

Wettlaufer, W. L., apparatus for grading materials, (P.), B., 129. Apparatus [vibrating screen] for grading materials, (P.), B., $\bar{4}$ 80.

Wettstein, A. See Ruzicka, L. Wettstein, E. See Konek, F. See Ruzicka, L.

Wetzel, R., application of Fujita's method of blood-sugar determination to tissue-

sugar, A., 878. and Heid, T., glycogen and carbohydrate content of the fatty tissue of rats given unbalanced diets after fasting, A., 1144.

Wollschitt, H., Ruska, H., and Oest-reicher, T., protein, fat, and carbohydrate metabolism in the white rat. II. Effect of fasting, A., 1143.

Wetzel, IV. IV., theoretical cross-section for K-electron ionisation by electron impact, A., 656.

Wever, F., and Ajax Electrothermic Corp., furnace-lining protection, (P.), B., 604. and Naeser, G., manner of combination of carbon in hardened and tempered steels, B., 548.

Weyerts, W. J., and Hickman, K. C. D., the argentometer-an apparatus for testing for silver in a fixing bath, B., 253.

See also Eastman Kodak Co.

Weygand, C., principles and methods of a chemical morphology of carbon com-pounds, A., 744. Form and formula in organic chemistry; comparative morphology of carbon compounds, A., 1484.

and Hennig, II., organic micro-analytical

practice, A., 352. Weygand, F. See Kuhn, R.

Weygandt, A. S. Sce Grasselli Chem. Co. Weyl, W., and Rudow, H., influence of fluorides on spectral absorption of coloured iron complexes, A., 544.

Sec also Büssem, W., and Turner, W. E. S. Weyrauch, P., and Müller, Herbert, lead in

drinking-water, A., 518.

Whatmough, W. A., motor spirits of 1936, B., 1076.

Wheatley, A. H. M. Sec Quastel, J. H.

Wheaton, E. See McClung, L. S. Whedon, E. F. See Althausen, T. L.

Wheeler, A., and Pease, R. N., relative rates of combination of hydrogen and deuterium with ethylene, A., 1344.

Topley, B., and Eyring, H., absolute rates of reaction of hydrogen with the halogens, A., 567.

Wheeler, A. E., and Eagle, H. Y., Rhokana

electrolytic copper refinery, B., 794.
Wheeler, C. M. See Marsden, C. P.
Wheeler, J. A., interaction between a-partieles, A., 131. Dependence of nuclear forces on velocity, A., 1442.

See also Way, K. Wheeler, R. V., inflammation of dust clouds, B., 964.

See also Mason, T. N., Mott, R. A., Payman, W., and Thompson, J. K.

Wheeler, T. S., theory of liquids. V., A., 271. Constitution of formic acid and formates. I., A., 663, 1184. See also Acharya, B. G. S., Dodwadmath,

R. P., Ferreira, B. F., Joshi, S. P., Motwani, D. C., Nabar, M. V., Nadkarni, D. R., Rege, P. S., and Shah, R. C.

Wheeting, L. C., shot soils of western Washington, B., 291. Static friction measurements in soil-moisture relationships, B., 291.

Whelan, M., determination of nitrate in animal tissues, A., 536.

and Shoemaker, H. A., chloride and total base contents of tendon and

cartilage, A., 1403. Wheland, G. W., and Pauling, L., quantum-

mechanical discussion of orientation of substituents in aromatic molecules, A., 14.

Whelpley, M. G. B. See under Guggenheim Bros.

Whetham, E. O., and Hammond, J., factors affecting milk and butter-fat secretion. I. Variations in fat weight, fat percentage, and the amount of fat in milk required to make a given weight of butter. II. Colour of the butter-fat,

Whetzel, J. C., Zimmerman, R. E., and Amer. Sheet & Tin Plate Co., recovery of salts and other compounds [from pickling solutions], (P.), B., 884.

Whewell, C. S. Sec Speakman, J. B.

Whiddington, R., and Woodroofe, E. G., energy losses of electrons in helium, neon, and argon, A., 130. See also Roberts, J. E.

Whipple, C. C. See Gardner, W. H. Whipple, D. V., destruction of vitamin-A

by rancid cod-liver oil, B., 1106.

Whipple, F. J. W., influence of urban conditions on circulation of electricity through the atmosphere, A., 1225.

Whipple, F. L., and Gaposchkin, (Miss) C. P., bright line spectrum of Nova Herculis, A., 655.

Whipple, G. II., hæmoglobin regeneration as influenced by diet and other factors, A., 621.

See also Daft, F. S., and Robseheit-

Robbins, F. S.
Whiston, H. W. See Cathode Corp., Ltd.
Whitaker, C. H. W., and Industrial Dyestuff Co., monomethyl-p-aminophenol

and its sulphate, (P.), B., 360.

Whitaker, M. D., Bjorksted, W., and Mitchell, A. C. G., quick method of depositing polonium on silver, A., 305.

See also Mitchell, A. C. G.

Whitby, G. S., polystyrene and mechanism of polymerisation, A., 324.

and Green, F. G., advances in Canada in the realm of chemical engineering, B., 671.

Whitby, L., corrosion of magnesium, B., 600.

Whitcher, L. B., Booher, L. E., and Sherman, H. C., calcium content of the body in relation to the calcium and phosphorus content of the food, A., 1543. Whiteomb, W., jun., wax moth and its control, B., 853.

Whiteomb, W. D., naphthalene as green-

house fumigant, B., 853.

White, A., production of a deficiency involving cystine and methionine by administration of cholic acid, A., 369. Analyses of thyroglobulin, A., 903. See also Fishman, J. B.

White, A. C. See Dow Chem. Co. White, A. E. See Clark, C. L.

White, A. G. See Imperial Chem. Industries. White, A. H., moisture losses with different types of butter wrappers, B., 1015.

White, Addison H., and Morgan, S. O., transitions in camphor and chemically related compounds. If. Vibration of atomic groups, A., 12.

White, Alfred H., Leland, C. H., and Button, E. W., determination of dissolved oxygen in boiler feed-water, B., 1023.

See also Merkns, P. J., and White, J. F. M.

White, A. R., deodorising compositions,

(P.), B., 958.

White, C. M., heat capacity of aqueous solutions of carbamide and mannitol, A., 1340. Heat capacity of aqueous solutions of barium chloride, A., 1340.

White, D., metamorphism of organic sediments and derived oils, A., 818.

White, D. E. See Raistrick, H. White, F. L. See Brooker, L. G. S. White, F. R. See Lewis, H. B. White, G. See Michels, W. C.

White, G. D. See Texas Co.

White, G. S. J. See Imperial Chem. Industries.

White, H. E. See Ballard, S. S. White, H. J. See Varney, R. N.

White, H. L., interaction of factors in growth of Lemna. VII. Effect of potassium on growth and multiplication, A., 532. Interaction of factors

in growth of Lemna, A., 908. and Monaghan, (Miss) B. R., isoelectric point of adsorbed hamoglobin, A., 621. Properties of red cell surfaces influencing rouleau formation, A., 1399.

Monaghan, (Miss) B. R., and Urban, F., stream potentials and d.c. surface conductivities in small capillaries, A., 424.

See also Monaghan, (Miss) B. R.

White, J. D. See Leslie, R. T. White, J. E., development and future possibilities of gas as an industrial

fuel, B., 226. White, J. F. M., and White, Alfred II., sodium sulphide, B., 316.

White, J. W. See Gardner, F. D.

White, L. A. See Murray, J. J.
White, L. M. See Mehring, A. L.
White, M. G., scattering of high-energy protons in hydrogen, A., 400.

White, M. R., and Pratt, J. P., uterine response to pitocin, A., 901.

White, N. D., uses of phosphates in the dyehouse, B., 831. White, O. See Fryling, C. F.

White, P., and Caughley, F. G., colour in [vegetable-tanned] sole leather, B., 849. Storage of pickled pelts, B., 947. Determination of water-solubles in [vegetabletanned] sole leather, B., 1058. White, Paul. See Folley, S. J.

White, R. P., and Hamilton, C. C., diseases and insect pests of rhododendron and azalea, B., 294.

White, W. E., dithizone as reagent for dissolving and determining spray-residue lead [on fruit], B., 810.

Whitehead, F. E., effect of arsenic, as used in poisoning grasshoppers, on birds, В., 38.

Whitehead, H. See Du Pont de Nemours & Co., E. I.

Whitehead, H. C., and O'Shaughnessy, F. R., factors in the design of sewagedisposal works, B., 861.

Whitehead, H. R., and Cox, G. A., bacteriophage phenomena in cultures of lactic Streptococci, A., 898. See also Cox, G. A.

Whitehead, J. B., and Shevki, S. H., directcurrent clean-up in insulating oils, B., 403. Whitehead, R. W., and Fox, C. A., effect of cortico-adrenal extract on the course of bacterial intoxications in guinea-pigs,

A., 900. Whitehead, T. H., and Dunson, J. B., determination of oleomargarine in ice cream, B., 810.

Whitehead, W. E. See Maw, W. A.

Whitehead (Laisterdyke), Ltd., W. & J. See Steward, C. O. M.

Whiteley, J. II., iron-carbon diagram near zero carbon (below 1000°), B., 697. Whiteley, J. M., jun. See Standard Oil

Development Co.

Whiteley, S., and Soane, O. V., determination of halides in photographic materials, B., 763.

Whiteman, E. F. See King, F. B., and Wright, R. C.

Whiteman, T. M. See Wright, R. C. Whitescarver, W. See Du Pont de Nemours & Co., E. I.

W., report of [Sudan] Whitfeild, B. Government chemist, 1934, B., 513.

Whitfield, $B.\ H.$, Davis, $H.\ P.$, and Downs, P. A., effect of milk on metals and of metals on milk, B., 426.

Whitlatch, G. I., Porters Creek clay of Tennessee as bleaching agent for oils, B., 368.

Whitman, J. L., and Clardy, L., densities and refractive indices of bromoformbenzene mixtures, A., 419.

Whitman, W. G. See Standard Oil Co.

Whitmer, C. A., and Pool, M. L., lowvoltage disintegration of lithium with lithium, A., 1315. Whitmore, F. C., Homeyer, A. II., Trent,

W. R., and Mallinckrodt Chem. Works, tert.-butylacetic acid, (P.), B., 920. See also Loder, D. J., and Marker, R. E.

Whitmore, *II*. B., filter, (P.), B., 961. Whitmore, L. M., and Leas & McVitty, Inc., filling of leather, (P.), B., 1114.

Whitmore, W. B., and Ditto, Inc., tanning of hectograph copying pads, (P.), B., 982.

Whitmore, W. F. See Hartman, E. F. Whitnah, C. H., and Riddell, W. H., milk as source of vitamin-C, A., 530. Sec also Riddell, W. II.

Whitney, C. L., and Barlow-Whitney, Ltd., apparatus for [electrically] heating glue or other solids or liquids, such as waxes, tallows, or oils, (P.), B., 507.

Whitney, M. E. See McDowell, L. S. Whitney, R., and Burdick, H. O., tubelocking of ova by estrogenic substances, A., 1564.

Whitney, R. S., and Gander, R., determining available phosphorus by extracting soils with a potassium carbonate solution, B., 292.

Whitney, W. R. See Gen. Electric Co. Whittaker, C. M., azoic dyes on viscose rayon, B., 492. Common sense is still

the best dycing assistant, B., 787.
Whittaker, C. W., Lundstrom, F. O., and
Shimp, J. H., system magnesium sulphate-carbamide-water at 30°, A., 1464. Whittemore, E. R. Sce Wingfield, B.

Whittemore, J. W., mechanical method for measurement of plasticity of clays and mixtures of clays, B., 20.
Whittier, C. C., machine for making

chemical [artificial] asbestos, (P.), B., 739.

Whittier, E. O., and Trimble, C. S., differences in lactic acid percentages in butters, B., 120.

Whitworth, J. B. See Pope, (Sir) W. J. Whitzel, R. J. See Aluminum Co. of America.

Whytlaw-Gray, R., disperse systems in

gases, A., 1198. Cawood, W., and Patterson, H. S., sedimentation method of finding the number of particles in smokes, A.,

Green, H. L., Lomax, R., and Watson, H. H., separating or estimating particles suspended in gases or vapours, (P.), B., 579.

See also Cawood, W.

Wibaut, J. P., chemical structure of natural rubber and of varieties of artificial rubber, B., 1220.

Overhoff, J., and Geldof, H., 4-bromopyridine, A., 83.

Wibaut, J. P., Willink, H. D. T., jun., and Nieuwenhuis, W. E., preparation of 2:2'-diquinolyl by catalytic dehydrogenation of quinoline, A., 85.

Sec also Den Hertog, H. J., Dow Chem.

Co., and Oosterhuis, A. G.

Wiberg, E., constitution of diborane, A., 140. Arrangement of chemical elements in teaching, A., 1043.

and Heubaum, V., boron halide additive compounds of anomalous composition. II. Action of phosphine on boron fluoride, A., 173.

and Smedsrud, H., compounds of the type $BCl_{3-n}(OR)_n$. III. Preparation of $BCl_3 \cdot OMe$ and $BCl(OMe)_2$ from III. Preparation boron trichloride and methyl borate, A., 195.

Wicherlink, E. See Böeseken, J.

Wichers, C. M., corrosion of cast iron pipes in soil, B., 412. Wichers, E. See Gilchrist, R.

Wichmann, H. J. See Clifford, P. A., and Dahle, D.

Wichterle, O. See Votoček, E.

Wichtner, J. H. See Fisher, P. K.

Wick, F. G., and Throop, C. G., luminescence of frozen solutions of certain dyes, A., 1181.

Wick, G. C., slowing down of neutrons, A., 264.

Wickenden, L., and Naugle, J. J., activated vegetable carbons, (P.), B., 582.

Wickenden, T. H. See Merica, P. D. Wickerham, L. J. See Fabian, F. W. Wickert, J. N. See Carbide & Carbon

Chemicals Corp.

Widdowson, E. M. See McCance, R. A. Widemann, W., non-destructive testing of heavy metal parts by means of ultra-short-wave X-ray radiation, B., 841.

Widenbauer, F., correlation of vitamin-A and -B with the calcinosis factor, A., 904.

Widmaier, O. See Brigl, P., and Lohaus, H. Widmann, E. See Schneider, Erich. Widmark, E. M. P., effect of hormones

on alcohol metabolism, A., 115.

Widmer, A. See Crasemann, C.

Widmer, W. See Soc. Chem. Ind. in Basle.

Wiebe, R., and Tremearne, T. H., partial molal volumes of ammonia and hydrogen in liquid ammonia-hydrogen mixtures under pressure at 100°, A., 279.

Wiebenga, E. H., transition points of

hexachloroethane, A., 20.

Wiechmann, F. See Biltz, W., and Wiehage, G.

Wiede's Carbidwerk Freyung m.b.H., compressed carbide bodies, (P.), B., 135.

Wiedemann, G. See Brunner, O. Wiedemann, O. See Fischer, F. G.

Wiedenbeck, H. J., production of reformed natural gas at the Chicago By-Product Coke Co., B., 915.

Wieder, F. W., and San Francisco Sulphur Co., prepared sulphur, (P.), B., 1039. Wiedmann, A., disturbance of protein

metabolism following liver injury by salvarsan, A., 1553.

Wiegand, E., and Allgem. Elektricitäts-Ges., indirectly-heated cathode, (P.), B., 699.

Wiegand, K. See Gen. Electric Co. Wiegand, W. B., carbon black, (P.), B.,

.916.

Wiegel, E., dependence of swelling power of potato starch in warm water on the kind and amount of cations contained therein, A., 287.

Wiegels, (Frl.) L. See Weibke, F. Wieghard, C. W. See Julianelle, L. A.

Wiegner, G., hay and silage, B., 473. Nutrient losses in various foodconservation methods, B., 569.

and Tscherniak, A., feeding-trials with skim-milk powder for hens, B.,

Wiehage, G., Weibke, F., and Biltz, W. [with Meisel, K., and Wiechmann, F.], affinity. LXX. Combination of palladium and phosphorus, A., 1351.

Wieland, H., Crawford, M., and Walch, Hans, mechanism of oxidation processes. XLV. Anaërobic fermentation of fumaric acid, A., 1560.

and Hanke, G., constitution of bile acids. LV. Weak acids of ox bile, A., 983.

Hartmann, Adolf, and Dietrich, H., quinovic acid. V., A., 849.

Hesse, G., and Hüttel, R., toad poisons. IX. Questions of constitution, A., 1252.

Kraus, K., Keller, H., and Ottawa, H., constitution of bile acids. LIV. Unsaturated acids, A., 983.

and Pistor, H.J., mechanism of oxidation processes. XLIV. Dehydrogenating enzyme system of Acctobacter per-

oxydans. I., A., 893.
Rauch, K., and Thompson, A. F., mechanism of oxidation processes. XLIII. Arrest of the respiration and fermentation processes of yeast, A.,

Wieland, K., Mehrli, W., and Miescher, E., new absorption spectrum of diatomic sulphur vapour in the Schumann region, A., 1.

'iemann, J., general method for preparation of αα'-diethylenie glycols, OH-CHR-CHR'-OH; conversion of some Wiemann, of these glycols into sugars, A., 589.

Wien, J. L. See Watson, K. M.Wien, M., determination of dielectric constants and dipolo loss at high frequencies. I. Introduction, A., 549.

Wien, R., increase in toxicity for mice of solutions of neoarsphenamine on exposure to air, A., 377. Influence of diet on toxicity of mercurochrome and of neoarsphenamine, A., 893. Influence of vitamin deficiency on resistance of rats to neoarsphenamine, mercurochrome, pernocton, and insulin, A., 1416.

Wieneke, H. A., filtration, (P.),

Wienhaus, H., Ritter, H., and Sandermann, W., resins. I. German pine turpentine from Pinus silvestris, L., A., 1385.

and Sandermann, W., resins. II. Additive capacity of the pine resin acids, A., 1385.

Wieninger, F. M., malt grist, B., 39. Evaluation of malt grist by means of control sieves and proposals as to sieves suitable for process and laboratory grists, B., 39. Rapid determination of water in cereals at high temperature in the Ulsch drying oven, B., 903. Rapid determination of nitrogen with selenium as accelerator, B., 903.

Wiersma, $E.\ C.$ See De Haas, $W.\ J.$ Wiersma, $J.\ T.$ See Clay, J.

Wiertelak, J., determination of lignin by hydrolysis of accompanying carbohydrates by sulphuric acid, B., 14. Wierzbicki, M. See Ježewski, M.

Wierzuchowski, M., origin of specific dynamic action of intravenous fructose at the three levels of assimilation in a normal dog, A., 236.

Borkowski, Z., and Gostynska, A., intimate mechanism of diabetes from

superabundance, A., 231. and Chmielewski, T., vascular balance of lactic acid in the organs of the dog, after saturation of the organism with glucose, A., 236.

and Fiszel, H., hydrolysis, oxidation, and energy exchanges in the dog. III. Absorption and assimilation of hexoses in organs during intravenous administration of galactose, maltose, and glucose. IV. Absorption of fructose by the organs of dogs in vivo, A., 104,

Wiesbader, H., Reid Hunt reaction and

the thyrotropic hormone, A., 903. Wieseman, R. W., frequency changers for induction furnaces, B., 939.

Wiesemann, W. See Müller, Eugen.

Wiessner, P., advantages of chemicallyprepared metal powders as raw materials, B., 794.

Wiester, H. J., nitrogen absorption in the polishing of soft iron, B., 838.

See also Bernhardt, E. O.

Wietbrock, R. See Wittig, G. Wiezevich, P. J. See Standard Oil Development Co.

Wig, R. J., and Kelco Co., readily water-

soluble dry alginate, (P.), B., 489. Wiggam, D. R. See Hercules Powder Co. Wiggans, R. C., combinations of maize and soya beans for silage, B., 563.

Wiggins, W. R., relationship between the constitution and viscosity characteristics of hydrocarbons, A., 1060.

and Hall, F. C., solvent-extraction processes, B., 308.

See also Hall, F. C., and Nash, A. W. Wight, E. H., Anderson, D. L., and Watmough, W. N., jun., superphosphate, (P.), B., 368.

See also Ober, B. Wightman, G. E., fibrous composition [for electrical insulation], (P.), B., 314.

Wigner, E., constant A in Richardson's equation, A., 770.

and Huntington, H. B., possibility of a metallic modification of hydrogen, A., 133.

See also Breit, $G_{\cdot \cdot}$, and Farkas, $L_{\cdot \cdot}$

Wigton, G. H., froth flotation of oxidised ores, (P.), B., 154.

Wigzell, E., lead [in the paper industry], B., 14.

Wiig, E. O. See DeRight, R. E. Wiig, O. See Hermansen, V.

Wijk, A. van. See Boer, A. G. Wijkström, T. See Svanberg, O.

Wik, S. N. See Bent, F. A. Wilbaux, R., composition and toxic properties of seeds and leaves of Tephrosia vogelii, Hook. f., B., 386.

Wilborn, F. See Fonrobert, E. Wilbur, J. W., Hilton, J. H., and Hauge, S. M., effect of soya beans in the ration of dairy cows on the vitamin-A value of butter, B., 474.

See also Hilton, J. H.

Wilby, A. C., jun. Sec Lord, F. Wilcox, D. H., jun. Sec Bigelow, L. A. Wilcox, J., Mote, D. C., and Childs, L., root-weevils injurious to strawberries in Oregon, B., 757.

See also Edwards, W. D.

Wilcox, R., occurrence of largo zircon needles in a basic pegmatite [near Mellen, Wisconsin], A., 1228.

Wilcoxon, F., determination of pyrethrin-I, B., 1177.

See also Hartzell, A., McCallan, S. E. A., and Zimmerman, P. W. Wild, W. See Spence, R.

Wild-Barfield Electric Furnaces, Ltd. See Coleman, J. P. D., and Grene, G. H. S.

Wilder, A. B. Sec Kharasch, M. S.
Wilder, H. K. Sec Kellogg Co.
Wilder, M. Sco Nygaard, K. K.
Wilder, O. H. M. Sco Bethke, R. M., and

Kick, C. H.
Wilder, T. See Kick, C. H.
Wilderman, M., and Wilderman, P., surface coatings of soft to hard rubber, etc., (P.), B., 1057.

Wilderman, P. See Wilderman, M. Wilding, T. S. See Klein, A. B.

Wildman, H. G., sponge iron, (P.), B.,

and Fowler, C. H., treatment of alunite, (P.), B., 101.

Wildman, J. D., microscopical detection of karaya gum, gum tragacanth, and agar-agar, B., 166.

Wildner, See Zuhr. Wildner, E. L. See Beebe, R. A.

Wildschut, A. J., synthetic materials for replacing rubber, B., 945. Wiles, A. E. See Short, W. F.

Wiley, F. H., Hueper, W. C., and Oettingen, W. F. von, toxicity and potential dangers of ethylene glycol, A., 517.

See also Duffendack, O. S., and Oettingen, W. F. von.

Wiley, R. H. See Pinkney, P. S. Wilford, A. T., fuel oils; requirements for small compression-ignition engines, B.,

Wilgus, H. S., jun., Norris, L. C., and Heuser, G. F., rôle of certain inorganic elements in the cause and prevention of perosis, A., 1541. Relative protein efficiency and vitamin-B2 content of common protein supplements used in poultry rations, B., 347. Effect of heat on the nutritive value of soyabean oil meal, B., 761.

See also Norris, L. C., and Van Wagenen, A.

Wilharm, G. See Kolbach, P. Wilhelm, A. F., significance of lipins, especially of phosphatides, in the frost-resistance of plants, B., 35. Coldresistance of vines and fruit trees, B., 116. Behaviour of so-called non-hardy crop plants at low temperatures, with special reference to the influence of mineral nutrition and of nitrogen metabolism, B., 467.

Wilhelm, H., counter measurements and

Röntgen unit, A., 445. Wilhelm, J. O. See Misener, A. D. Wilhelm, R. H. See McKee, R. H.

Wilhelmi, A., apparatus for indicating and recording the dust content of blast-

furnace gases, (P.), B., 401. Wilhelmi, A., unexpected manurial effects; importance of secondary constituents

of fertilisers, B., 422. and Gericke, S., action of the iron in basic slag, B., 34. Action of various phosphate fertilisers, B., 246.

and Siemens, K. H., determination of phosphoric acid [in soils, fertilisers, etc.] by titration, B., 1115.

Wilhelmj, C. M., Henrich, L. C., Neigus, I., and Hill, F. C., origin and significance of neutral chloride in secretions of the stomach and duodenum, A., 228.

O'Brien, F. T., and Hill, F. C., inhibitory effect of the acidity of the gastric contents on the secretion of acid by the stomach, A., 1405. Improved gastric test meal and a study of the secretory curve in whole stomach pouches and in the normal intact stomach, A., 1405. See also Hill, F. C.

Wilhelmy, E., width of Ka lines of gaseous krypton and of elements in chemical compounds, A., 3. Dose measurement of very soft X-rays, A., 262.

Wilke, W., [high-grade] silk fabrics, (P.), B., 1087.

Wilkerson, V. A., human epidermis. II. Isoelectric points of the stratum corneum, hair, and nails as determined by electrophoresis, A., 225. Wilkie, J. B. See Osborne, R. A.

Wilkins, C. L. See Burton, H. B. Wilkins, E. T., "sensitisation" and other observations on [coal] slurry flocculation,

Wilkins, G. J. See Gen. Electric Co.

Wilkins, H. L., total chlorine in plants,

Wilkins, R. A., and Industrial Development Corp., electrolytic apparatus, (P.), B.,

and Revere Copper & Brass Inc., stainless copper-base alloy, (P.), B., 330.
[Copper] alloy, (P.), B., 796. [Copper] welding rod, (P.), B., 937.
Wilkins, T. R., Rayton, W., and St.

Helens, H., a-ray and proton tracks in photographic emulsions, A., 1313. High-frequency parallel rod method for the determination of a-ray speeds, A., 1313.

and St. Helens, H., direct photographic tracks of atomic cosmic-ray corpuscles, A., 542.

and Shnidman, L. S., isotopes in induced radioactivity, A., 1042.

Wilkins, W. E., Calhoun, J. A., Pilcher, C., and Regen, E. M., influence of pituitary growth-hormone on phosphatase activity of bone and kidney, A., 251.

Regen, E. M., and Carpenter, G. K., phosphatase of biopsy tissue in progressive myositis ossificans, A., 752.

Wilkinson, B., rubber compositions from rubber latex, (P.), B., 112.

Wilkinson, E. W. See Trotter, W. Wilkinson, Harry. See Beeston, A. W., and Channon, H. J.

Wilkinson, Henry, hydrogen peroxide in

bleaching [textiles], B., 786.

Wilkinson, J. F., anti-anæmie principle of liver, A., 499.

and Deutsch, Walter, methamoglobin test for determination of anti-anæmic liver-extracts, efficiency \mathbf{of} 891.

See also Ashford, C. A., and Deutsch, Walter.

Wilkinson, W. D., action of xanthates on lead glance, B., 599.

Wilkinson, W. T., renovating a silver-[plating] bath, B., 24.
Will, G. See Jores, A.

Willach, E. See Sauer, E.

Willard, H. H., and Hager, O. B., jun., thermionic titrimeter without batteries,

and Thielke, R. C., preparation of potassium molybdo- and molybdi-cyanides, A., 174.

Willard, J., all-glass valve, A., 46.

and Daniels, F., photobromination of tetrachlorocthylene and of chloroform with special reference to the effects of oxygen, A., 37. Willard, M. L., and Crabtree, D. E.,

semi-micro-Cottrell b.-p. apparatus,

A., 304.

See also Shaner, M. L., Yorks, K. P., and Zerfoss, S.

Willard Storage Battery Co. See Rose, C. C. Willborg, K. S. See Andrus, O. E. Willcock, R. B., concentrated phenolate developers, B., 1019.

Wille, \hat{R} , means for cleansing the skin,

(P.), B., 1070. Willemart, A., dissociable anthracene oxides: influence of mesonaphthyl

groups; effect of mesotolyl groups, A., 197, 462.

Willets, W. R., effect of beating and pigmentation on [paper] sheet properties, B., 268. Titanium pigments in paper-

making, B., 735.

Willey, E. J. B., chemical reaction in the electric discharge. I. Chemical effects of impulse discharges, A., 36.

Willey, J., electrical synthesis of nitric

oxide, A., 436. Willey, L. A. See Brown, R. II.

Willheim, R. See Frisch, C.

Williams, A. R., Johnson, F. M. G., and Maass, O., heats of solution and specific heats of rhombic sulphur in carbon disulphide; surface energy of solid rhombic sulphur, A., 161.

Williams, A. S., catalytic apparatus, (P.), B., 674.

Williams, B. H. See King, J. G.
Williams, C. C. See Cameron, E. J.
Williams, C. E., Sullivan, J. D., and Battelle Memorial Inst., refractory material [cement], (P.), B., 1042. bearing briquettes, (P.), B., 1042.

Williams, C. H. B., Follett-Smith, R. R., and Cameron, C., field experiments with

sugar cane, B., 1012. Williams, C.J. See Rosin, J.

Williams, David, sulphur deposits of the Sierra de Gádor, Province of Almeria, Spain, A., 585.

Williams, Dudley, infra-red evidence for existence of an isomeric form of HCN. A., 268. Infra-red absorption of rubber and related hydrocarbons, A., 1049.

and Bost, R. W., reaction products of ethyl alcohol and sodium hydroxide, A., 703.

and Plyler, E. K., infra-red absorption spectra of mixtures of acctone and water, A., 545. Infra-red spectrum of heavy acid solutions, A., 1049.

See also Gordy, W., and Plyler, E. K. Williams, D. B. See Carbide & Carbon

Chemicals Corp. Williams, E., nature and amount of colloids present in sewage. VII. Effect

of bubbles of gas and agitation on sewage liquors, B., 77. and Murray, K. A., nature and amount of colloids present in sewage. VIII.

Effect of bubbles of gas on sterilised sewage samples, B., 1133.

Williams, E. C., explosions arising from ethers, A., 1091.

See also Owen, E. A. Williams, E. F. See Chibnall, A. C.

Williams, E. G., absorption-line intensities in B-type stars, A., 1040.

Perrin, M. W., and Gibson, R. O., effect of pressure up to 12,000 kg. per sq. cm. on reactions in solution, A., 1073.

Williams, E. J., nature of the high-energy particles of penetrating radiation and the status of ionisation and radiation formulæ, A., 6. Effect of thermal agitation on atomic arrangement in alloys. III., A., 151. Conservation of energy and momentum in atomic processes, A., 660.

and Pickup, E., conservation of energy in radiation processes, A., 1316.

See also Bragg, W. L.

Williams, E. R., and Johns-Manville Corp., thermal insulation, (P.), B., 960.

Williams, F. See Molyneux, J. Williams, F. A. See Horton, L.

Williams, G. C., and Ragatz, R. A., lowtemperature reduction of magnetite ore; effect of catalytic compounds, B., 321. Williams, G. W. See Sutton, T. C.

Williams, H. A., application of the f.-p. test to heated milks, B., 567.

Williams, H. H. Sec Hansen, A. E.

Williams, I., pendulum as a source of energy for placticity measurements, B., 863.

and Smith, C. C., hydrazines as rubber softeners, B., 69.

See also Du Pont de Nemours & Co.,

Williams, J. C., hypothesis concerning bacteriophagy, A., 899.

See also Fulmer, E. I.

Williams, J. H., and Wells, W. H., evidence from efficiency curves for the nature of the disintegration process for boron, A., 1045.

See also Vaughan, A.L.

Williams, J. J. See Massey, I. H.

Williams, John Warren, and Arnold, O. M., dispersion of electrical conductivity and dielectric constant in dilute solutions of strong electrolytes, A.,

Schwingel, C. H., and Winning, C. H., polarity of nitrogen tetroxide and nitrogen dioxide molecules, A., 408.

See also Watson, C. C.

Williams, John Webster, invasiveness of skin infections caused by pathogenic fungi and subsurface mycelium, A., 1027.

Williams, Jonathan W. See Hurd, C. D.

Williams, K. A. See Bolton, E. R. Williams, K. T., and Byers, H. G., occurrence of selenium in the Colorado River and some of its tributaries, A., 48. Selenium compounds in soils, B., 1011. and Lakin, H. W., determination of

selenium in organic matter, A., 219. See also Byers, H. G.

Williams, N.H. See Dent, F.J. Williams, O.B., "tryptone" medium for detection of flat-sour spores, A., 1154.

Williams, O. E. See Williams, R. O.
Williams, P. S. See Gardner, F. D.,
Johnson, O. W., and Scott, G. H.
Williams, R., rate of loss of exchangeable

lime from North Welsh agricultural soils, B., 610.

Williams, R. B. See Hammick, D. L.

Williams, Robley C., properties of evaporated films of aluminium over chromium, B., 237.

and Gibbs, R. C., fine structure of Da with increased resolution, A., 127,

Williams, Robert C., and Bone, H. M., treatment of glass wool, (P.), B., 1095.

and Ironsides Co., applying metal-forming lubricants, (P.), B., 604.

Williams, Ray D. See Schaffer, P. A. Williams, Russell D., and Gutman, A. B.. hyperproteinæmia with reversal of the albumin-globulin ratio in lymphogranuloma inguinale, A., 1541.

Williams, R. J., errors in micro-weighing due to the use of lead shot in tares, A., 955. Micro-determination of active hydrogen with deuterium oxide, A.,

Mosher, W. A., and Rohrman, E., importance of "pantothenic acid" in fermentation, respiration, and glycogen storage, A., 1558.

and Rohrman, E., β -alanine and "bios," A., 896.

See also Woodward, G.J.

Williams, R. O., Williams, O. E., and Harvey, W. A., [coating composition for] stencil, (P.), B., 653.

Williams, R. R., structure of vitamin- B_1 , A., 1159.

and Cline, J. K., synthesis of vitamin- B_1 , A., 1276. Williams, R. S., diseases of steels and other

metals and their prevention, B., 412. Williams, R. T. See Pryde, J

Williams, S. D., and Timken Roller Bearing Co., manganese-molybdenum-vanadium steel and articles [boiler tubes] made

therefrom, (P.), B., 280.
Williams, T. D., Ralston, H. C., and
Amer. Steel & Wire Co. of New Jersey, bright-finish tinned material, (P.), B., 153.

Williams, T. L. See Du Pont de Nemours & Co., E. I.

Williams, W. C., stable standardised gold solution, A., 304.

Williams, W. G. See Britton, H. T. S. Williams, W. H. See Dow Chem. Co. Williams, W. O. M. See Hartshorne,

N, H.Williams, W. W., and Smirnov, V. S.,

essential oil from Crimean Lavandula

vera, D.C., B., 715.
Smirnov, V. S., and Golmov, V. P., crystalline substance from the essential oil of Lachnophyllum gossypinum, Bge., A., 259.

Williamson, A. T., and Oakes, W. G., determination of $p_{\rm H}$ values by the hydrogen and antimony electrodes, A., 1218. $p_{\rm H}$ values of some alkaline products, A., 1342.

Williamson, J., analysis of copper-nickelaluminium alloys, B., 697.

Williamson, J. T., efficiency of ammoniated superphosphate for cotton, B., 422.

Williamson, W. O., composite gneiss and contaminated granodiorite of Glen Shee, Perthshire, A., 185. Minor intrusions of Glen Shee, Perthshire, A., 1088.

Willien, L. J., carbon-black removal from gas at Louisville, B., 726.

Willimek, G., electric battery cell, (P.), B., 1051. Willink, H. D. T., jun. See Wibaut, J. P.

Willis, H. F. See Allsopp, C. B.

Willis, L. G., and Piland, J. R., function of copper in soils and its relation to the availability of iron and manganese, B., 709.

See also Clevinger, C. B.

Willits, C. O., and Kokoski, F. J., changes in stored corn [maize] meal, B., 216. See also Clark, A. W.

Willmeroth, E., kettle for stand-oil manufacture, B., 461.

Willmore, C. B. See Aluminum Co. of America.

Wills, C. H., alloy steel, (P.), B., 1045. Wills, L. A., and Breit, G., nuclear magnetic moment of ²³Na, A., 1309.

Wills, M. E., apparatus for making rayon, (P.), B., 269.

Willshaw, H. See Dunlop Rubber Co. Willson, E. A., and Amer. Anode, Inc., coagulant composition [for rubber latex], (P.), B., 464.

Willson, K.S. See Booth, H.S.

Willstaedt, H., detection of vitamin-Aby the Rosenthal-Erdélyi test, A., 118. Determination of potassium in organs and parts of organs, A., 260. Chromatographic analysis and its applications, A., 441. Pigments of Lactarius deliciosus, L. II., A., 858. Carotenoids of the cranberry, A., 1571.

and Lindqvist, I'., carotenoids of human serum and liver. I., A., 879.

Willstätter, R., enzyme chemistry, A., 241. Willstrop, J. W., Sidery, A. J., and Sutton, H., fluxes for use in soft-soldering, B.,

Wilm, D., Hofmann, U., and Endell, K., significance of Röntgen-interference tests at high temperatures for ceramic research, B., 370.

See also Hofmann, U.

Wilman, H. See Finch, G. I. Wilmot, C. A. See Lucas, H. J.

Wilmot & Cassidy, Inc., and Cassidy, T. A., rendering liquid hydrocarbons fluorescent and dyes therefor, (P.), B.,

Wilms, H., photographic material for multicolour screen pictures, (P.), B., 125.

Wilsdon, B. H., Bonnell, D. G. R., and Nottage, (Miss) M. E., behaviour of water held in fine-pored media, A.,

Wilshaw, R. G. H., padi manurial and minor cultural trials, B., 467.

Wilsome, F. P. W., dull finishing of knitted rayon fabric, B., 17.

Wilson, A., and Maxwell, Ltd., J. & W., continuous rotary mixing machines, (P.), B., 479.

Wilson, A. M. See Pound, J. R.

Wilson, A. R., influence of Phytomonas tumefaciens and P. rhizogenes on actual acidity of certain liquid and agar substrates, A., 247. Wilson, A. T. See Barrett, J. F.

Wilson, A. W. G., raw materials for chemical manufacture and the manufacture of chemical products in Canada, B., 671.

Wilson, B. See Petrenko, S. N.

Wilson, B. D., Eames, A. J., and Staker, E. V., genesis and composition of peat deposits, B., 1222. Wilson, C. See Aitken, R. S.

Wilson, C. E., and Independent Grinding Wheel Co., abrasive wheel, (P.), B., Wilson, Cecil L., and Parke, J. B., effect of emulsifier concentration on globule size and viscosity in emulsions, A., 1199.

Wilson, Christopher L., structure of benzene. IX. Direct observation of the fluorescence spectra of benzeno and hexadeuterobenzene vapour in the region of absorption, A., 1323. Prototropy in relation to exchange of hydrogen isotopes. II. Comparison of the velocities of dissociation of a proton and a deuteron from a ψ -acid, A., 1469. See also Angus, W. R., Hsü, S. K.,

Ingold, C. K., Isaacs, E., and Weldon,

L, H. P.

Wilson, Curtis L., and Peretti, E. A., zinc-indium alloy system, A., 419.

Wilson, D. A., hydroxyl linking in n-ali-

phatic alcohols, A., 703. and Ford, T. F., "pockeling" of freshly swept surfaces of solutions, A., 423. See also McBain, J. W., and Pitzer, E. C.

Wilson, D. M., colour-testing of bitumen, B., 83.

Wilson, E. B., jun., symmetry considerations concerning splitting of vibration-rotation levels in polyatomic molecules, A., 136. Partial interpretation of the Raman and infra-red spectra of benzene, A., 269. Vibration-rotation energy levels of poly-atomic molecules. II. Perturbations due to neighbouring vibrational states, A., 782. Effect of rotational distortion on the thermodynamic properties of water and other polyatomic molecules, A., 1190.

and Howard, J. B., vibration-rotation energy levels of polyatomic molecules. I. Mathematical theory of semi-rigid asymmetrical top molecules, A., 667.

Wilson, E. D., comparison of photoemissive and photo-voltaic devices [for measuring radiant energy], A., 697. See also Ballard, J. W.

Wilson, E. O., plasticity of finely-ground [ceramic] minerals with water, B., 544.

Wilson, F. J. See Coffey, S., and Glen,

Wilson, F. P., jun. See Gen. Electric Co. Wilson, G. S., modified methylene-blue reduction tests for grading of raw milk on bacterial cleanliness, B., 615.

Wilson, G. V., Edwards, W., Knox, J., Jones, R. C. B., Stephens, J. V., and Flett, J. S., geology of the Orkneys, A., 449.

Wilson, Hewitt, and Pask, J. A., tale and soapstone in Washington, B., 317. Wilson, Hildegarde. Sec Shore, A.

Wilson, II. A., energies of nuclear reactions, A., 266. Structure of atomic nuclei, A., 660. Calculation of at. wts. from nuclear reaction energies, A., 1042.

Wilson, H. B., occurrence and distribution of starch in wood of the red-tulip oak (Tarrielia argyrodendron, var. peralata), B., 194.

See also Cummins, J. E.

Wilson, H. L., and Price, W. V., brick cheese, B., 41.

Wilson, H. N. See Hughes, W. C. Wilson, J. See Topley, W. W. C.

Wilson, John, plastics used in manufacture of laminated safety glass, B., 496. See also Pilkington Bros., and Triplex Safety Glass Co.

Wilson, J. A., electronic theory of tanning. I. A new theory. II. Quinone tanning. III. Vegetable tanning, B., 706, 897. Colloidal clay in leather manufacture, B., 948.

Wilson, J. B., determination of thujone in absinthe-type liqueurs, B., 390.

Wilson, J. F. See Gruber, C. M.

Wilson, J. M., devices for applying thin layers of liquids [glue], (P.), B., 513.

Wilson, J. S., application of dyes to Australian cotton, B., 540.

Wilson, L. D., starting the Daniels-Heidt capillary mercury-are lamp, A., 814. Wilson, L. T. See Russell, W. C.

Wilson, M. M., and Sharples Solvents Corp., amyl-substitution products of amylenediamine, (P.), B., 1082. [Nitrocellulose] lacquer [containing synthetic resin], (P.), B., 1166. Wilson, N. R., and Bngbird Co., Inc., H. C.,

barium nitrate, (P.), B., 931.

Wilson, P. W., carbohydrate-nitrogen relation in symbiotic nitrogen fixation, A., 649. Mechanism of symbiotic nitrogen fixation. I. Influence of nitrogen pressure, A., 1164.

See also Smyth, E. M., and Umbreit, W. W.

Wilson, R., air separation [of cement], B., 372.

Wilson, R. A. See Park, C. F., jun. Wilson, R. E., and Gasoline Antioxidant Co., motor fuel products, (P.), B., 681. Motor fuel distillate, (P.), B., 822.

and Keith, P. C., jun., developments in propane technique, B., 484. Economic aspects of solvent refining of lubricating oils, B., 484.

Keith, P. C., jun., and Haylett, R. E., use of liquid propane in dewaxing, deasphalting, and refining heavy oils,

See also Frescol, Ltd., Rogers, T. H., and Standard Oil Co.

Wilson, R. H., and De Eds, F., chronic nicotine toxicity. I. Feeding of nicotine sulphate and tannate and bentonite. II. Effect of nicotine-containing diets on blood-sugar concentration in the rat, A., 1553.

Wilson, R. L., low-alloy steels for oilrefinery service, B., 993.

Wilson, R. R. See Singer, S. C., jun. Wilson, S. D., and Huang, H. T., Friedel-Crafts reaction. I. Polyhalogen derivatives of triphenylmethane, A., 976.

and Ting-Hsi, L., preparation of anhydrous calcium sulphate, A., 1079.

Wilson, S. J., and Walzer, M., absorption of undigested proteins in man. IV. Absorption of unaltered egg-protein in infants and in children, A., 1543.

Wilson, T. A., crystal structure of β-manganese, A., 1186. Wilson, T. L. See Hogness, T. R. Wilson, W. C., Fawkes, C. E., and Pyr-

oxylin Products, Inc., lacquers for brush application, (P.), B., 109.

Wilson, W. R., and Hansen, A. E., scrumlipins by a micro-gravimetric technique, A., 356.

See also Hansen, A. E.

Wilson Co., H. A. See Holbrook, H. E. Wilson Welder & Metals Co., Inc., material [coated ferrous metal rods] for use in arc-welding, (P.), B., 1046. See also Faulkner, L. E.

Wilster, G. H., controlling composition of Oregon butter, B., 759.

Wilton, N. See Chem. Eng. & Wilton's Patent Furnace Co.

Wilton, T. O. See Chem. Eng. & Wilton's Patent Furnace Co.

Wimmer, A., plating iron with aluminium, (P.), B., 330, 459.

Wimmer, G., Lüdecke, H. [with Unverdorben, O., Grimm, J., and Storck, G.], influence of varying supplies of potassium on yield and properties of various species of barley, with special reference to utilisation of assimilated potassium, B., 611.

See also Krüger, W. Wimmer, J. See Romeis, B.

Wimplinger, F., occurrence of a new breakdown product of blood pigments (pentdyopent) in the urine, A., S81.
Winbladh, R., chemical Imethod

analysis of gaseous olefines and its

application in practice, B., 732. Winchell, A. N., biotite system, A., 308. Winchester, C. F., apparatus for automatically maintaining reduced pressure, A., 447.

Winchester, G. W., and Heveatex Corp., rubber goods from latex, (P.), B., 241. Winchester Repeating Arms Co. See

McNutt, J. D., and Tauson, H. Winckler Engineering Laboratories, Inc.,

electric generating [primary] cells, (P.), B., 844.

Windaus, A., sterols as precursors of hormones, vitamins, and other physiologically important compounds, A., 644.

and Grundmann, W., constitution of vitamin-D₂. II., A., 1247.

Schenck, F., and Werder, F. von, antirachitic irradiation product of 7-dehydrocholesterol, A., 982.

and Thiele, W., constitution of vitamin- D_2 , A., 69.

Tsohesche, R., and Grewe, R., anti-neuritic vitamin. IV., A., 253.

Windecker, R. E., fuel briquettes, (P.), B., 532. Cement, (P.), B., 596. Barium hydroxide, (P.), B., 988.

Winderlich, R., Ruska's researches on alchemy of Al-Razi, A., 1086. Persian description of the faience technique at Kashan in 1301 A.D., B., 1041.

Windheuser, C. [with Hoffman, O., and Ohlmer, E.], ensilage with addition of ammonia and ammonium salts, B., 473. Windisch, F., intensity of protein precipitation in the [brewer's] copper, B., 565.

Windridge, M. E. See Clifford, W. Windsor, B. A. M. See Goodeve, C. F. Windsor-Bowen, E. See Gower, C. H. R. Winfield, J., dyeing of loose wool with rhodamine dyes, B., 97.

Wing, H. J., reaction between paint films and zinc surfaces, B., 336. Waterimpedance of cellulose nitrate films, B., 829.

Wing, H. U. See Sherman, J. M.

Wingfield, B., and Acree, S. F., electrometric pH equipment and hysteresis of calomel electrodes, A., 1481.

Naffziger, T. R., Whittemore, E. R., Overman, C. B., Sweeney, O. R., and Acree, S. F., pressboard from cornstalks, B., 1200.

Whittemore, E. R., Overman, C. B., Sweeney, O. R., and Acree, S. F., paper pulp from cereal straws by a modified sulphate process, B., 1199.

Wingfoot Corporation, thermoplastic rubber derivatives, (P.), B., 31. [Pearlescent] moulded products, (P.), B., 111, 288. Preservation of rubber, (P.), B., 339, 1169. Organic disulphides, (P.), B., 488. Treatment [kneading] of plastics, (P.), B., 560. [Accelerators for] vulcanisation of rubber, (P.), B., 561. [Condensed-rubber] base for artificial denture, (P.), B., 609. Wrapping, (P.), B., 609. Coated or laminated products [comprising rubber hydrohalides], (P.), B., 984. Vulcanisation of rubber, (P.), B., 946, 1009, 1221. Treatment of rubber, (P.), B., 1009.

See also Calvert, W. C., Clifford, A. M., Cramer, H. I., Lauter, W. M., Manchester, F. H., Sebrell, L. B., Teppema, J., Thies, H. R., Ward, J. S., and Wolfe, W. D.

Winiker, K., ageing properties of paints based on aluminium-silicon pigment, B., 1005.

Winkel, A., suspended matter in gases, A., 934.

and Proske, G., electrolytic reduction of organic compounds at the dropping mercury electrode. I. and II., A., 708, 1233,

and Witt, W., photographic observation of aerosol particles as an objective method of measurement, A., 794. See also Beischer, D.

Winkelmann, H., separation of benzine, benzol, etc. from effluents by means of active carbon, B., 775.

Winkelstein, A., gastric secretion during the night, A., 1536.

Winkler, C. A., and Hinshelwood, C. N., esterification as a gas reaction, A., 164.

Sec also Hinshelwood, C. N.

Winkler, E. H., double amplifying apparatus for the detection of individual electrons in thermal emission, A., 1224.

Winkler, G., binding process in production of brown-coal briquettes without a binding agent, B., 176.

Winkler, H., changes in potassium and calcium content in the gravid uterus, A., 623.

Winkler, J. See Piotrowski, W. von. Winkler, J. E. R., quantitative spectralanalytical investigations on copper alloys for analysis of prehistoric bronzes, B., 1043.

Winkler, L. W., determination of reducing power of impure air, B., 126.

Winkler, M., flotation of cassiterite and wolframite, B., 889. Winkler, O. See Grube, G.

Winkler, W., stabilisation of milk by electrical de-acidification, B., 952.

Winkler, W. O., determination of small quantities of mercury in leafy vegetables by means of diphenylthiocarbazone (dithizone), B., 168. [Determination of] shell in cacao products, B., 1066.

Winnek, P. S., and Schmidt, C. L. A., solubilities of dihalogenated l-tyrosines in ethyl alcohol-water mixtures, A., 790.

Winner, G. B. See Buchanan, G. H.

Winnett, J. W. G. See Webster, H. G. Winning, C., Tuttle, J., and Stanco, Inc., rust remover, (P.), B., 506.

See also Standard Oil Development Co. Winning, C. H. See Williams, John Warren.

Winogradsky, S., morphology and physiology of soil Azotobacter, A., 1301.

Winokuti, K., and Toriyama, M., sulphonated oils. XXV. Reaction between soya-bean or herring oils and concentrated sulphuric acid. XXVI. Subsequent decomposition of the sulphuric esters during the sulphonation of fatty oils, B., 701.

Wins, H. C., preservation of marine-animal

products, (P.), B., 251. Winslow, C. E. A. See Mooney, G.

Winstein, S., and Young, W. G., allylic rearrangements. I. Crotyl and methylvinylcarbinyl bromides, A., 311. See also Young, W.G.

Winston, A. W., Reid, J. B., and Gross, W. H., surface preparation and painting of magnesium alloys, B., 205.

See also Dow Chem. Co. Winter, E. A. See McKee, R. H.

Winter, H., relations between tar and oil yields on low- and high-temperature carbonisation of bituminous coal, B., 773.

and Free, G., comparison of hydrogenation processes, B., 773.

Mönnig, H., and Free, G., analytical separation of Ruhr coal, B., 529. Hydrogenation of primary tar from a Westphalian "flame" coal, B., 1028.

Winter, \hat{K} . A., influence of diuretics on chlorine of rat organs, A., 240.

Winter, O. B., [analysis of] plants, B., 1060. Winterberg, S. H. See Blair, A. W. Wintercorn, H. F., surface behaviour of

bentonites and [soil] clays, B., 291.

Winterfeld, K., Dörle, E., and Rauch, C., determination of small amounts of arsenic in organic materials, A., 90, 493. and Rönsberg, H. E., syntheses of 1:2dimethyl- and 2-methyl-pyrrolidine-5-carboxylic acid, A., 209. Lupin alkaloids. X. Degradation of dehydrosparteine methoacetate by oxidation. XI. Oxidative degradation of a-didehydrosparteine, A., 216.

Winterkorn, H. See Baver, L. D.

Wintermute, H. A., and Research Corp., electrical treatment [electrostatic precipitation] of fluids, (P.), B., 700.

Winters, J. C. See Yeager, R. Wintersberger, K. See Hönigschmid, O. Wintershall Akt.-Ges., reduction of fine iron ores, (P.), B., 552.

and Schmalfeldt, H., gasification of fine coal or dust coal with circulating gas chiefly for production of water-gas and gas for the synthesis of benzine, (P.), B., 1079. Gasification of dust or fine-grained fuels with circulating gas for production of water-gas and gas for synthesis of benzine, (P.), B., Ĭ079.

Winterstein, A. See Schürch, O. Winterstein, H., face paints, (P.), B., 1068. Wintersteiner, O., and Pfiffner, J. J., adrenal cortex. II. Isolation of several physiologically inactive crystalline compounds from active extracts, A., 115. See also Pfiffner, J.J.

Wintgen, R., and Lins, K., TiO2 hydrosols, A., 1066.

Winther, M. O. See Orla-Jensen.

Winthrop Chemical Co. See Kneip, A., Kropp, W., Marx, K., and Schmidt,

Winzer, C. B., low-temperature carbonisation of coal and other materials, (P.), B., 84.

Winzer, K. See Fischer, F., and Peters, K. Winzer, F. L. See Lugg, J. W. H. Wirbatz, W. See Müller, Richard. Wirtel, A. F. See De Groote, M.

Wirth, C., and Andersson, O., use of the new Swedish vacuum dryer in the malting and brewing industries, B., 1063.

and Strong, J. R., determination of elementary sulphur in gasoline and naphtha, B., 1138.

See also Universal Oil Products Co. Wirth, E. H., Martin, L. E., and Soderdahl, P. G., cudbear, B., 140.

See also Bruch, G. Wirth, H. See Utterback, C. L. Wirth, P. H. A. See Schlemmer, F.

Wirth, W., and Klimmer, O., toxicology of the organic solvents; 1:4-dioxan, A., 1550.

Wirth, W. V. See Du Pont de Nemours & Co., E. I.

Wirtschafter, Z. T., and Schwartz, E. D., toxicology of oxy-acetylene welding, B.,

Wirtz, K., exchange equilibria between deuterium and ammonia, A., 159. Equilibrium constants of the exchange reactions HCl+HD=DCl+H2 and HBr+HD=DBr+H₂, A., 427. Equilibrium of exchange reactions with deuterium, A., 427. Determination of deuterium content of hydrogen mixtures by Farkas' micro-thermal conductivity method, A., 811.

and Bonhoeffer, K. F., reaction of formaldehyde with hydrogen peroxido in heavy water; non-exchangeability of hydrogen atoms of formaldehyde, A., 688. Release of protons from molecular hydrogen with the aid of hydroxyl ions, A., 1203.

Wirz, H. See Ruzicka, L.

Wisconsin Alumni Research Foundation, chemically pure starch and method of purification and separation, (P.), B., 389. Wise, C. R. See Standard Oil Develop-

ment Co.

Wise, E. M., and Internat. Nickel Co., Inc., electrodeposition of platinum metals, (P.), B., 106. Platinum-metal amminocyanide plating bath and electrodeposition of platinum metal therefrom, (P.), B., 459.

See also Kihlgren, T. E.

Wise, W. S., apparatus for removing fibrous material from liquids, (P.), B., 129. Wiselogle, F. Y. See Bachmann, W. E. Wiseman, H. G. See Converse, H. T. Wiseman, R. J., Reinitz, B. B., and

Okonite-Callender Cable Co., Inc., [lead] alloy [for cable sheaths], (P.), B., 154. Wishart, F.O. See Craigie, J

Wishart, J. See Woodman, H. E. Wishart, J. M., chemistry of sewage containing trade wastes, B., 302.

Wishin, A. See Gross, P.

Wishnofsky, M., and Kane, A. P., offect of equivalent amounts of glucose and starch on glycomia and glycosuria in diabetics, A., 231.

Wislicenus, II., pore viscosimetry of molecular aggregation in solution, A., 1481. Wisner, C. B., and Coal Process Corp.,

thermal pretreatment of volatile coals for carbonising and coking processes, (P.), B., 308. Carbonising apparatus, (P.), B., 308.

Wiśniewski, F. J., dielectrio constant of

helium, A., 924.

Wisan, N. J. See Cummings, G. T. Wisselinck, S. See Hilpert, R. S.

Wissler, W. A., and Haynes Stellite Co., surface hardening of metal articles [tools], (P.), B., 796.
Miller, W. B., and Haynes Stellite Co.,

composite welding rod for hard facing, (P.), B., 1046.

Wiszniewski, W. See Brydówna, W. Witebsky, E., and Neter, E., properties of different streptococcal librinolysins, A., 1562.

Neter, E., and Sobotka, H., relation between type-specific carbohydrates of pneumococci and blood group-specific

substances, A., 359.

Witham, G. S., jun., hydration of [paper] pulp, (P.), B., 539. Determining, recording, and controlling the density, consistency, or sp. gr. of fluent materials, (P.), B., 722.

Witherington, P. See Chattaway, F. D. Withers, J. C., [rayon] staple fibres, B.,

Witherspoon, R. A., and Cadenhead, A. F. G., contributions of calcium carbide to industry, B., 986.

Withrow, L. See Rassweiler, G. M. Withrow, R. B., Shrewsbury, C. L., and Kraybill, H. R., precision photo-electric colorimeter, A., 954.

Witkowitzew Bergbau-& Eisenhütten-Gewerkschaft, and Belohlavek, B., furnace walls, furnace gas baffle plates,

etc., (P.), B., 128. Witmer, E. E., doublet separation in normal state of nitric oxide and its thermodynamic quantities, A., 405. Energy levels of the asymmetrical rotator in the new quantum theory, A., 1185. Magnetic susceptibility of molecular hydrogen, A., 1453.

Witschi, E., and Pfeiffer, C. A., hormonal control of œstrus, ovulation, and mating

in the female rat, A., 527.

Witt, D., removal of organically-bound sulphur from technical gases, B., 531. See also Kiesel, H.

Witt, W. See Winkel, A. Witte, H. See Goldschmidt, V. M., and Laves, F.

Witte, M., surface index of fine dusts, B., 911.

Witte, R. M., rapid determination of the particle size of wheat flour, B., 518. Wittekind, J. See Oelgoetz, A. W.

Wittekind, W., cements in solutions injurious to concrete, B., 61.

Wittenberger, W. See Brass, K.

Wittich, influence of kind of forest trees on biological condition of soils in northwest Germany, B., 383.

Wittig, G., polarisability of the ethylenic

linking, A., 451.
and Kethur, R. [with Klein, A., and Wietbrock, R.], formation of polyene chains; preparation of unsaturated aldehydes, A., 1509.

and Klein, A., ωω'-tetraphenylpolyene hydrocarbons; valency tautomerism of unsaturated systems, A., 1370.

and Obermann, B., s-tetradiphenylvinylcthane, a tetra-substituted ethane hydrocarbon which decomposes into radicals, A., 196.

and Pockels, U., action of nitrogen dioxide on tetraphenylsuccinonitrile,

A., 722.

Wittka, F., partial hardening of highly unsaturated oils. I. Linseed oil, B., 1053.

Wittmann, G. See Hönigschmid, O.

Wittmann, V. See Schroeder, H. Wittmeyer, H. See Koblitz, W.

Wittner, F. Seo Hönigschmid, O.

Wittouck, S. F., baryta process for extracting sugar from cane and beet molasses, B., 1120.

Witts, L. J., therapeutic action of iron, A., 372. Paroxysmal hæmoglobinurias, A., 1141.

Wittstadt, W. See Thiessen, P. A.

Witzel, H. W., and Amer. Cyanamid & Chem. Corp., metal polish, (P.), B.,

Wlodarski, W. See Jellinek, K.

Wodlinger, M., combination of salicylic acid and a calcium salt, (P.), B., 77*.

Wodstrup, I. See Hagedorn, II. C. Wöhlbier, W. See Bünger, II.

Wöhlisch, E., classical theory of blood coagulation and its modern development, A., 1136.

and Belonoschkin, B., Gans effect, streaming double refraction, and particle shape in protein solutions, A., 562.

Diebold, W., and Kiderlen, O., kinetics of thrombin action, A., 1531.

and Kiesgen, A., viscosity of fibrinogen, A., 874.

Woelfflin, R. See Fauré-Frémiet, E. Wördehoff, P. See Strack, E.

Woerdeman, H., influence of the water vapour content of an odorous gas on the

olfactory sense, A., 373.

Woerdeman, M. W., embryonic "induction" by chemical substances, A., 756.

Wörner, A. See Kutscher, W. Woglom, W. H., and Weber, L. A., heavy water and tumour growth, A., 100.

Wohl, (Mlle.) A., chemistry and spectroscopy of oxime acetates, A., 204. Reduction of oximes, A., 204. Attempted resolution of oximes, A., 205.

Wohl, K., energy balance of carbonic acid assimilation [by plants], A., 531. See also Gaffron, H.

Wohlberg, C. See Meltsner, M. Wohlenberg, W. J., radiation reaction at any point in a furnace cavity, B., 767.

Wohlgemuth, J. See Muraour, H. Wohrman, C. R. E., and Gen. Plate Co., thermostatic metal, (P.), B., 459.

Woidich, F. S., preventing oxidation and other losses in coals, etc., and more especially in bituminous coals, (P.), B.,

Woidich, K., photoelectric colorimetry in examination of foodstuffs, B., 761.

Wojahn, H., relation between chemical constitution and anæsthetic activity of 2-alkoxyquinoline derivatives, A., 482.

Wojciechowski, M., ebulliometric determination of small amounts of water, A., 693.

and Smith, E. R., determination of physico-chemical constants, A., 1058. See also Smith, E. R., and Swientoslawski, W.

Wokes, F., bacteria-proof filter, A., 583 Wolbergs, H., urinary phosphatase. II. Excretion by man, A., 521.

See also Kutscher, W.

Wolchensky, A. W., hardening of sand-lime bricks, B., 546.

Wolf, E., and Kereszty & Wolf, hydrogenated benzisotetrazoles, (P.), B., 825.

See also Lipp, P.

Wolf, E. J., physiologically balanced salt mixture, (P.), B., 592.

Wolf, F., individual effects in ion collisions in the absence of resonance (H+, H2+, He⁺ → He, Ne, A), A., 539. Effective cross-sections for ion collisions in tho absence of resonance, A., 539. Charging of gas molecules by slow ions, A., 1042.

Wolf, F. A. See Darkis, F. R., and Dixon, L. F.
Wolf, H. J., and Heinsen, H. A., effect of

specific substances of the body on blood pressure in man. III. Action of lacarnol, myoston, padutin, "fourth substanco" (Lange), and eutonone on intravenous application, A., 374. See also Heinsen, H. A.

Wolf, K., and Duell, F., determination of volume of pores in leather, B., 849. Effect of conditions of drying on properties of chrome- and vegetabletanned leathers. III. Theoretical considerations, B., 849.

Duell, F., and Heberling, R., effect of conditions of drying on properties of chrome- and vegetable-tanned leathers. I. Water evaporated from tanned pelt. II. Changes in mech-

anical properties, B., 849.

See also Eisenmann, K. Wolf, K. L. See Blanck, H. C., and

Schoppe, R. Wolf, L., visual conductometry. I. and II., A., 305. Passive metals in bimetallie

electrode pairs, A., 1467. Wolf, W. See Köster, W. Wolf, W. T. See Dean, P. M.

Wolfe, A. C., and Cooper-Bessemer Corp.,

gas producer, (P.), B., 53.

Wolfe, H. C., and Uhlenbeck, G. E., spontaneous disintegration of proton or neutron according to the Fermi theory, A., 266.

Wolfe, H. J., and Fort Orange Paper Co., adhesive [for greasy or waxy paper], (P.),

B., 399.

Wolfe, J. M., action of a synthetic æstrogenic agent [9:10-dihydroxy-9:10-di-npropyl-9:10 dihydro-1:2:5:6:dibenzan-threne] on the anterior pituitary of the castrated female rat, A., 1427.

and Chadwick, C. S., structural changes induced in the anterior pituitary by injections of æstrin, A., 1564.

Wolfe, R. A. See Duffendack, O. S. Wolfe, W. D., and Wingfoot Corp., aminoderivatives of hydroxydiphenyls, (P.),

Wolfenden, J. H. See Caldin, E. F., Edwards, A. J., Small, P. A., and Walton, H. F.

Wolfers, D., determination of p_H by means

of the glass electrode, A., 176. Wolff, A. See Butenandt, A. Wolff, Eberhard. See Ruggli, P.

Wolff, Etienne, action of the male hormone (androsterone) injected into the chicken embryo: experimental production of intersexuals, A., 388. Injection of synthetic androsterone in the chicken embryo, A., 388. Double (masculinising and feminising) action of androsterone on the genital tract of the chick embryo, A., 763.

and Ginglinger, A., cestrogenic action of

androsterone, A., 762.

Wolff, F., making moulded articles from impregnated fibrous materials, (P.), B.,

Wolff, H. See Gen. Electric Co.

Wolff, Hans, mol. wt. of stand oil, B., 558. and Zeidler, G., evaluation of rustpreventive paints by swelling characteristics, B., 29. Oil requirements of pigments as a function of size and form of the particles, B., 243. Viscosity of oil paints as an indication of their structure, B., 243. Comparative investigation of lead-manganese driers, with special reference to the drying of oil paints, B., 649. Evaporation of solvents from varnishes, B., 894. Specific gravity [of pigments, etc.], B., 1005. Viscosity changes of a [drying paint, varnish, or lacquer] film, B., 1006. Saponification velocity as an aid in varnish analysis, B.,

Zeidler, G., and Luyken, A., behaviour of chlorinated rubber in paints, B., 1005.

Wolff, Heinz, nature of "excited" colour centres, A., 1176.

Wolff, Herbert, mineral content of German fodders, and influence thereon of manuring and source, B., 346.

Wolff, L. K. See Brock, A.

Wolff, O., determination of purity of starch-milk, B., 166.

Wolff, R., Rangier, M., and Bourquard, A., influence of alkalosis on serummagnesium, A., 1009. Relation between the magnesium of muscle and chronaxie, A., 1286.

Wolff, T., gold leaf and gold beating, B., 413.

Wolff & Co., production of foils and like planiform structures from formylcellulose, (P.), B., 187.

Wolfke, M., and Kecsom, W. H., electrical resistance of liquid helium, A., 1189.

Wolfram & Molybdan Akt.-Ges., sintered

hard alloys, (P.), B., 505.
Wolfrom, M. L., esters of aldehydrol form of sugars, A., 318.

and Christman, C. C., ring closure in sugar benzoates, A., 317.

and Georges, L. W., open-chain derivatives of d-mannose, A., 1365.

Konigsberg, M., and Soltzberg, S., determination of O- and N-acetyl structure of osazone acetates, Λ ., 592.

and Soltzberg, S., semicarbazone and oxime acetates of maltose and cellobiose; aldehydocellobiose octa-acetate. A., 1366.

Wolkensohn, D. V. See Bronstein, I. A. Wollan, E. O., scattering of X-rays by gases, A., 1053.

Wollaston, W., and Brunswick-Balke-Collender Co., synthetic resin product and process, (P.), B., 1110.
Wollenberg, H., arrangement for mixing

liquids in bottles, A., 1481.

Wollner, H.J. See Gen. Chem. Co.

Wollschitt, II., iodine value as a biological constant; rapid micro-determination by means of bromine vapour, A., 126. See also Wetzel, R.

Woloszczuk, A. See Tutscholski, T. Woloszyn, M. See Bezssonoff, N.

Wolstadt, R., titrimetric determination of camphor (and hexetone) in medicinal mixtures, B., 812.

See also Schulek, E. Wolter, A. See Hilpert, R. S.

Wolter, J. G. See McGinty, D. A. Woltersdorf, G. See Zintl, E. Wolthuis, E., lowest temperatures, A., 954. Wolvekamp, H. P. See Hill, R.

Wolzogen Kühr, C. A. H. von, anaërobic corrosion of iron pipes, B., 697. and Pfeiffer, J. P., corrosion and pro-

tection of cast-iron and steel pipelines in the soil, B., 887.

Womack, M., and Rose, W. C., feeding experiments with mixtures of highly purified amino-acids. VII. Dual nature of the "unknown growth essential," A.,

Wong, A. See Wen, I. C. Woo, S. C., Liu, T. K., and Chu, T. C., fundamental frequencies of the cyanogen molecule, A., 14. Woock, W. R. J., mineral separator, (P.),

B., 280.

Wood, A. J. See Eagles, B. A., and Sadler, W.

Wood, A. M. See Universal Oil Products Co.

Wood, C. E. See Harris, T. L.

Wood, E. E., and Ferguson, J. B., preparation and composition of wustite phases, A., 1080.

Wood, F. C., reactions of sulphuryl diamide (sulphamide), A., 60. See also Tootal Broadhurst Lee Co.

Wood, G. M., treating lubricating oils to improve their viscosity index, B., 1030.

Wood, H., titanium compounds and their use in the textile industry, B., 540.

See also Cellulose Acetate Silk Co. Wood, H. G., and Werkman, C. H., utilisation of CO₂ in dissimilation of glycerol by propionic acid bacteria, A., 248. Mechanism of glucose dissimilation by propionie acid bacteria, A., 640.

See also Osburn, O. L., Stone, R. W., and Tatum, E. L.

Wood, H. L. See Gen. Electric Co. Wood, H. S., drying apparatus, (P.), B.,

Wood, J. W., and Parrish, E., corrosion from products of combustion of gas. III. Tube experiments, B., 6.

Wood, L.J. See Thomas, E.B.

Wood, M. L., and Chase Companies, Inc., furnace for producing purified metals, (P.), B., 279.

See also Wood, W. B., jun.

Wood, N. E., examination of quenching liquids, B., 134.

Wood, R. G., and Ayliffe, S. H., determining optical constants of crystals and application to certain organic compounds, A., 415.

Wood, R. H. Sec Evans, R. H.

Wood, R. O. See Nat. Aniline & Chem. Co. Wood, R. T., and Magnesium Development Corp., coating [of magnesium articles], (P.), B., 26. [Magnesium] alloy, (P.), B., 647. Magnesium-base alloy, (P.), B., 797.

Wood, R. W., anomalous diffraction gratings, A., 128. Raman spectrum of deuteracetaldehyde, A., 1180. Raman spectrum of heavy benzene C₆D₆, Ā., 1319.

See also Franck, J.

Wood, T. F. See Julian, P. L. Wood, T. J., thermal-expansion characteristics of some nickel cast irons, B., 547. Wood, W. A., examination of electro-

deposited nickel coatings by X-ray diffraction, A., 15.

See also Gough, H. J. Wood, W. B., jun., Wood, M. L., and Baldwin, I. L., relation of oxidationreduction potential to growth of an aërobic micro-organism, A., 383.

Wood, W. C. See Rabinovitsch, E.

Wood, W. H., determination of moisture in coal, B., 914.

See also Birmingham, J. F., jun.Wood, W. R. See Bottoms, R. R. Wood, W. S. See Laporte, Ltd., B.

Woodall-Duckham (1920), Ltd., Carcy, H. H., and Cottrell, A. F., vertical carbonising retorts, (P.), B., 967.

and Gardner, W. T., vertical retorts for carbonisation of coal, (P.), B.,

and Jackson, G. J., mixture of coal gas and water-gas, (P.), B., 679. and Kent, A. T., mixture of coal gas and

water-gas, (P.), B., 679.

and Reber, J. W., dry-cooling of clinker, ash, and furnace residues, (P.), B., 911. Combustion of refuse and similar fuels of low calorific value, (P.), B., 1070.

and Townend, F. S., coal gas, (P.), B.,

Woodbridge, J. L., storage-battery charging, B., 202.

Woodbury, C. A. See Du Pont de Nemours & Co., E. I.

Woodcock, A. H. See Hill, S.

Woodcock, J. See Sherwood, I. R. Woodcock & Mellersh. See Stanger. R.~H.~H.

Woodfine, W. J., substances for use as foundations, pavement and similar surfaces, bankings, fillings, etc., (P.), B., 321.

Woodford, A. O. See Foshag, W. F. Woodford, E. K., and McCalla, A. G., absorption of nutrients by two varieties of wheat grown on the

black and grey soils of Alberta, B.,

See also McCalla, A. G. Woodford, L. W., Callaway, R. W., and Mann, A. M., staining of fibrous bodies, (P.), B., 935.

Woodhead, H. A., treatment [mechanical pre-shrinking] of cloth, (P.), B., **450.**

Woodhouse, J. C. See Du Pont de Nemours & Co., E. I.

Woodman, H. E., Evans, R. E., and Eden, A., composition and nutritive value of marrow-stem and thousand-head kales, B., 522.

Evans, R. E., and Callow, E. II. [with Wishart, J.], nutrition of the bacon pig. I. Influence of high levels of protein intako on growth, conformation, and quality, B., 1231.

Woodmansey, Arnold, mineral waters of Harrogate, A., 183.

Woodmansey, A. Colin, at. wts. by calculation, A., 771.

Woodroofe, E. G. See Roberts, J. E., and Whiddington, R.

Woodruff, E. II. See Hart, M. C. Woodruff, J. C., and Resinox Corp., synthetic [phenol-aldehyde] varnish composition, (P.), B., 895.

See also Commercial Solvents Corp.

Woodruff, S., and Hayden, H., effect of freezing on the physical and microscopical character of gels of corn [maize] and wheat starches, B., 564.

Woods, D. D., hydrogenlyases. IV. Synthesis of formic acid by bacteria, A., 638. Metabolism of strict anaërobes (genus Clostridium).V. Coupled reactions between pairs of amino-acids induced by Cl. sporogenes, A., 1560.

Woods, E., Atkeson, F. W., Slater, I. W., Arndt, C. D., and Johnson, R. F., vitamin-A content of pasture plants. IV. White blossom sweet clover (Melilotus alba, Desox.), orchard grass (Dactylis glomerata, L.), and meadow fescue (Festuca elatoir, L.) under pasture conditions and fed green, B.,

Atkeson, F. W., Shaw, A. O., Slater, I. W., and Johnson, R. F., vitamin-A content of pasture plants. III. Lucerne (Medicago sativa, L.) and smooth brome (Bromus intermis, Leyss), B., 346.

Atkeson, F. W., Wellhousen, H., and Johnson, R. F., vitamin-A content of pasture plants. II. Timothy (Phleum pratense, L.) and red-top (Agrostis alba, L.) under pasture conditions and green-fed, B., 346.

Woods, E. B. See Oberst, F. W. Woods, G. W., and Haynes Stellite Co., welding rod, (P.), B., 796.

Woods, H.J., electrical orientation of wool cells, A., 414.

Woods, J. J., availability of nutrients in raspborry plots in relation to winter injury, B., 1011.

See also Harris, G. H.

Woods, O. R. See Gustus, E. L.

Woodson, J. C. See Westinghouse Elec. & Manufg. Co.

Woodstock, W. H. See Adler, H.

Woodward, D. W. See Kohler, E. P. Woodward, G. J., Kingery, L. B., and Williams, R. J., fungicidal power of phenol derivatives. II. Strength in presence of proteins, A., 897.

Woodward, H. See Harris, T. L.

Woodward, (Miss) I. See Robertson, J, M.

Woodward, J. D. See Du Pont de Nemours & Co., E. I.

Woodward, L. A., blood-serum-lipins in cancer and other cases. II. Ultraviolet absorption measurements, A., 1136.

Woodward, R. H., coincidence counter studies of cosmic-ray showers, A.,

and Street, J. C., production and absorption of cosmic-ray showers [in lead], A., 1316.

Woog, P., Givaudon, J., and Chmelewsky, A., rapid determination of resin in petrols, B., 1077.

Givaudon, J., Dayan, F., and Bidet, A., determination of asphalts in oils, B., 483.

Givaudon, J., and Sigwalt, R., [bunker] fuels, B., 723, 1029.

Givaudon, J., Sigwalt, R., and Lienhart, J., photometric determination of m.p., A., 445. Determination of "flow point" at very low temperatures; application to light petroleum,

and Yannaquis, N., orientation of molecules of beeswax and its effect on rigidity of the honeycomb, 334.

Wooldridge, D. E., and Jenkins, F. A., enrichment of carbon in the heavier isotope by diffusion, A., 574. Enrichment of nitrogen in the isotope 15N, A., 772.

and Smythe, W. R., separation of gaseous isotopes by diffusion, A.,

Wooldridge, W. R., Knox, R., and Glass, V., variability in activity of bacterial enzymes. I. Effect of age of culture, A., 897.

and Standfast, A. F. B., use of the Barcroft differential manometer in determination of the oxygen absorption of sewage, B., 350. Factors that influence rate of activated-sludge and sewage oxidations, B., 350. Oxidation of sludge and sludge-sewage systems, B., 350. Rôle of enzymes in activatedsludge and sewage oxidations, B., 1134.

See also Corbet, A. S. Woolfenden, D. G., and Hodsman, H. J., partial gasification of coke. B.,

Woolgar, C. W., viscosity and stability of drilling fluid, B., 52.

Woolley, D. W., and Peterson, W. H., chemistry of mould tissue. XI. Isolation of leucine and isoleucine from Aspergillus sydowi, A., 897.

Strong, F. M., Peterson, W. H., and Prill, E. A., chemistry of mould tissue. X. Phospholipins of Aspergillus sydowi, A., 382.

See also Sandin, R. B.Woolloxall, J. L. D. See Briggs, L. H.Woolsey, G., general equation of state, A., 930.

Woolvin, C. S. See Imperial Chem. Industries.

Wooster, C. B., and Latham, D. S., stability of pinacolates in liquid ammonia solution, A., 312.

Wooster, (Mrs.) N: See Mann, F. G. Wooster, W. A., and Martin, A. J. P., automatic ionisation spectrometer, A., 1084.

Wooten, L. A., and Hammett, L. P., relative strengths of acids in n-butyl alcohol, A., 29.

Worcester, W. G., use of volcanic ash in ceramics, B., 497.

Worcester Salt Co., toothpastes, (P.), B., 174.

Work, H. K., anodic coating of aluminium, B., 415.

See also Aluminum Co. of America. Work, L. T., Swan, C., Wasmuth, A., and Mattiello, J., fish oil; changes in physical and chemical properties during heat-bodying, B., 1106. See also Volkmann, E. W.

Work, R. A., and Lewis, M. R., relation of soil moisture to pear tree wilting in a heavy clay soil, B., 1061.

Working, E. B., measurement of respiration in flour, B., 518.

World Bestos Corporation. See Nanfeldt, W.

Wormald, A. See Imperial Chem. In-

Wormald, H., laboratory tests of bactericides on the plum bacterial canker organism, B., 37. Development of scab in stored apples, B., 37.

Wormall, A. See Gaunt, W. E.

Worme, G. H., effect of acid cross-dyeing on Caledon [vat] dyes, B., 98. [Fastness of dyed] cotton material in acid crossdyeing, B., 736.

Wormser, F. E., lead and its uses in the mineral industries, B., 64.

Wormwell, F. See Bengough, G. D. Wornum, W. E., structure in paint and varnish systems, B., 380.

Worrall, D. E., alcoholic ammonia as a reagent in the nitrostilbeno series, A., 213. Bismuth derivatives of

diphenyl, A., 1396. and Bradway, C. J., alcoholic ammonia as a reagent for [condensation of] nitro-compounds and unsaturated

ketones, A., 1382. and Cohen, Sumner, behaviour of mag-

nesium diphenylyl bromide with

benzoquinone, A., 606. Worrell, W. P. See Western Electric Co. Worschitz, F., structure of cellulose, A., 143.

Worssam & Son, Ltd., G. J., Fox, D. P. S., and Alfa-Laval Co., Ltd., clarifying and sterilising beer and other liquids liable to fermentation, etc., (P.), B., 470. Worster, F. J. See Clark, L. H.

Worthen, C. T. See Putnam, C. I.

Worthington, J. T., and Petroleum Rectifying Co. of California, settling [the constituents of a petroleum mixture], (P.), B., 263.

Worthington, W. J., blocks or slabs for paving and similar purposes, (P.), B., 935.

Worthington Pump & Machinery Corporation. See Baer, A. H.

Worthley, H. N., and Marston, L. C., jun., codling-moth research, 1934, B., 756,

Worton, A. G. See Burrin, P. L.

Worzella, W. W., and Cutler, G. H., carotenoid pigments in wheat with special reference to varieties and strains, B.,

Wouters, H. See Michels, A. Wrana, J. See Zdralek, O.

Wrathall, L. R. See Bell Telephone Labs. Wray, R. I., [aluminium powder produced in steel ball mills], B., 413. Aluminium powder in southern [United States] paint formulation, B., 509. See also Edwards, J. D.

Wrigge, F. W., and Biltz, W., molecular state of red rhenium chloride in solution, A., 1337.

Wright, A. L., and Wright, A., apparatus for heating liquids, (P.), B., 723.

Wright, A. M., Mulholland, J. H., McCloskey, K. L., and Cotui, F. W., local adrenaline effect after sympathectomy. I. Peripheral vessels, A., 900.

Wright, C. I., and Barbour, F. A., respiratory effects of morphine, codeine, and related substances. V. Effect of a-, β -, and γ -isomorphines and their dihydroderivatives on the respiration of the rabbit, A., 517.

Wright, C. S. See Newington, F. H. Wright, C. T. Wright, D. A. See Streeter, H. W.

See M.-O. Valve Co. Wright, D. W. See McCoy, C. H.

Wright, G. C. See Honeywill & Stein, Ltd.

Wright, H. H., and Du Pont Cellophane Co., preservative [for regenerated cellulose], (P.), B., 926. Wright, H. L., size of atmospheric nuclei:

deductions from measurements of the number of charged and uncharged nuclei at Kew observatory, A., 1356.

Wright, H. N. See Hemingway, A. Wright, H. R. See Heilbron, I. M.

Wright, I. S., and Lilienfeld, A., crystalline vitamin-C: its effects on the capillary fragility, A., 529.

Wright, J., staphylococcal leucocidin (Neisser-Wechsberg type) and antileucocidin, A., 898.

Wright, J. C., disease of metabolism in sheep, A., 229. Pathological effects of - poisons used for rodents, A., 1149.

Wright, J. M., vulcanisation of rubber with m-dinitrobenzene, B., 1057.

Wright, L. See Gregersen, M. I. Wright, N. C., action of hypochlorites on amino-acids and proteins, A., 1236. See also Howat, G. R., and Morris, S.

Wright, O. E. See Daniels, A. L.

Wright, R., and Wallace, N. E., relative vapour pressure and aqueous solubility of the solid-solution system naphthol-naphthalene, A., 1333. See also Howarth, J. P.

Wright, R. C., storage of nuts, B., 665.
Peacock, W. M., Whiteman, T. M., and
Whiteman, E. F., cooking quality, palatability, and carbohydrate composition of potatoes as influenced by storage temperature, B., 856.

Wright, R. E., and Bergstrom, F. W., action of bases on organic halogen compounds. II. Basic catalysis in the dehalogenation of the phenyl halides, A., 1372.

See also Bergstrom, F. W. Wright, S. G., artificially colouring roofing granules, (P.), B., 373. Colouring of gob [crushed rock], (P.), B., 597. Roofing granules, (P.), B., 597.

See also Merriam, C. J.

Wright, T. See Le Blanc, F. Wright, T. A., rôle of the spectroscope and of minor elements in die-castings,

Wright, W. A. See Bennett, G. W.

Wright, W. D., and Nelson, J. H., subjective photometer, A., 181.

Wright, W. H., and Schenectady Varnish Co., coating composition [enamel for wire], (P.), B., 287.

See also Du Pont de Nemours & Co.,

Wrinch, D. M., pattern of proteins, A., 619. Energy of formation of "oyelol" molecules, A., 1324. Structure of proteins and of certain physiologically active compounds, A., 1535.

and Lloyd, \hat{D} . J., hydrogen bond and structure of proteins, A., 1528.

Wruble, M., enteric coatings. II. Excretion studies with sodium salicylate tablets, A., 363.

Wu, C. S. See Sah, P. P. T. Wu, D. K. See Chao, T. P.

Wu, H. See Chou, C. Y., and Wang, Y. Wu, L. C. See Davis, T. L. Wu, P. P. T., reactions of the contents of

the jejunum and experimental production

of peptic ulcer, A., 1139.

Wu, T. Y., energy distribution of neutrons from fluorine, A., 131. Energy states of doubly excited helium, A., 261. Stark effect of alkali metal atoms, A., 1167. Depolarisation of Raman lines of tetrachloroethylene, A., 1445.

and Kiang, A. T., absorption spectrum of tervalent cerium salts, A., 1177.

and Ma, S. T., doubly excited states of helium, A., 127. Variational wave functions of doubly excited states of helium, A., 1175.

See also Kiang, A. T., and Sun, C. E. Wu, Y. H., glucoside in Pardanthus chinensis, shekanin, A., 910. See also Merz, K. W.

Wülfert, K., Swedish top yeast: carboxylase, A., 1151.

Wülfing, J.A., Strum, E., and Fleischmann, R., compounds of sulphydrylkeratinic acid and similar reduced degradation products of keratin with organic compounds containing arsenic [pharmaceuticals], (P.), B., 124.

Wülfing, R. von. See under Wülfing, J. A.

Würstlin, F. See Anselm, F.

Würth, K., acrylic resins, B., 109. Molten coatings as anticorrosives, B., 650.

Wuertz, A. J. See Du Pont de Nemours & Co., E. I. Wüst, J. See Romeis, B.

Wüsthoff, P., variation of the dielectric constant of mercury with density at different temperatures, A., 1446.

Wuhrer, J. See Jander, W.

Wulf, H., weather-resistance of casein paints, B., 510.

Wulf, O. R., pressure broadening in γ -bands of nitric oxide, A., 405. See also Hendricks, S. B., Hilbert, G. E.,

and Melvin, E. H.

Wulff, H. D., electrotropism in pollen tubes, A., 1163.

Wulff, P., and Majumdar, S. K., re-fraction and dispersion in crystals and solids. XII. Molecular refractivities and molecular volumes in the glasses B_2O_3 , B_2O_3 , xNa_2O , and B_2O_3 , xNa_2O , yNaCl, A., 554. See also Rohde, L.

Wulff, R. G., and Wulff Process Co., production of carbides and manufacture of acetylene therefrom, (P.), B., 593.

Wulff Process Co. See Wulff, R. G.

Wullhorst, B. See Burkard, J. Wunderle, C., and Hunter, F. A., solder, (P.), B., 1162.

Wunderlich, F. See Thum, A.

Wunderlich, N., cleansing of pulp stock, B., 784.

Wunderlich, W., 7-dehydrositosterol, A., 982. Wunderly, H. L., Sowa, F. J., and Nieuwland, J. A., olefine-benzene condensation with the sulphuric acid catalyst, A., 975,

Wunsch, J. A., recovery of naphthenic acids, (P.), B., 585.
Wunsch, W., and Herning, F., determination of the density of gases by the jet method, B., 399.

Wurbs, A. See Klopstock, H.

Wurm, K., chemical constitution of planetary atmospheres, A., 551.

Wurmbach, II., soil respiration and concentration of carbon dioxide in the soil air of cultivated soils, B., 34. See also Heidermanns, C.

Wurmser, R., and Filitti-Wurmser, (Mme.) S., equilibrium between isopropyl alcohol and acetone in presence of alcohol-dehydrogenase, A., 936, 1339.

and Mayer, Nélicia, oxidation-reduction potential of reductone, A., 292. Reversibility of oxidation of ascorbic acid, A., 390.

Mayer, Nélicia, and Crépy, O., oxidoreduction potential of reductone, A.,

Wurster, O. H., apparatus for splitting fats, (P.), B., 558.

Wuyts, H., and Lacourt, (Mlle.) A., synthesis of derivatives of indole which contain sulphur, Comparison of action of the Grignard reagent on thiodiazolines and thioacylhydrazines, A., 1253.

Wuyts, H., and Verstraeten, R., isomerism of glycothiodiazolines, A., 617. Optical analysis and rotatory power of glyco-thiodiazolines, A., 968.

Wyart, J., crystallised p-toluidine, A., 414.

and Ki-Heng, Y., crystallographic study of tartaric acid derivatives, A., 1055.

Wyatt, P. F. See Strafford, N. Wycherley, S. R. See Dufaycolor, Ltd. Wyckoff, R. W. G., and Corey, R. B.,

X-ray diffraction patterns from reprecipitated connective tissue, A., 1533.

and Lagsdin, J. B., self-rectifying gas X-ray tube, A., 305.

See also Biscoe, J., and Corey, R. B.

Wyk, A. van der, and Meyer, K. H., measuring viscosity of solutions of organic substances, A., 47.

See also Meyer, K.H.

Wyk, C. M. van, Botha, M. L., and Bekker, J. G., effect of dietary supplements of different forms of sulphur on the wool of merino sheep, A., 889.

Wylam, B. See Damon, W. A., and

Ronald, D.

Wyler, J. A., and Trojan Powder Co., reduction of nitroguanidine, (P.), B.,

Wyler, M. See Imperial Chem. Industries. Wylie, C. C., rate of fall of meteoric material on the earth, A., 1089.

Wylie, H. B., and Schmulovitz, M. J., combination of continuous extractor and extract washer, A., 956.

Wyman, A. W., incineration of stack

gases at Pasadena sludge-drying plant, B., 957.

Wyman, E. T., Eley, R. C., Bunker, J. W. M., and Harris, R. S., comparison of "yeast" milk and irradiated milk in treatment of infantile rickets, A., 101.

Wyman, J., jun., polarisation and dielectric constant of liquids, A., 1182. See also Greenstein, J. P.

Wyman, L. Sce Harper, V. L. Wyman, L. C., and Suden, C. tum, differential depression of vaso-motor mechanisms by adrenaline, A., 525.

Wynd, C. L. A. See Eastman Kodak Co.
Wynd, F. L., determination of carbon
dioxide production in physiological
plant studies, A., 1433.

Wyndham, R. See Lemberg, R. Wyndham, S. L., and Wyndham's Liquid Coal Co., mixing apparatus, (P.), B.,

Wyndham's Liquid Coal Co., Ltd. See

Wyndham, S. L.
Wynne, A. M. See Freed, M., Johnston,
W. W., and Weinstein, S. S.

Wynne, W. P., toluene series. VI. Nitration of the 4-chlorotoluene-2and -3-sulphonic acids, 3-chlorotoluene-6-sulphonic acid, and their sulphonyl chlorides, A., 832.

See also Silvester, W. A., and Turner,

(Miss) E. G. Wynne-Jones, W. F. K., electrolytic

dissociation of heavy water, A., 1203. See also Eyring, H.

Wyns, G., new formula for metol-quinol developer, B., 396.

Wysocki, J., Rich, W. R., and U.S. Industrial Alcohol Co., artificial fuel, (P.), B., 403.

Wyss, A. P. See Poe, C. F. Wyszewianski, L. See Haller, R.

Xhignesse, L., working of [beet-sugar] massecuites, B., 468.

Ximenez, M. R., and Johns-Manville Corp., [cellulose] composit powder], (P.), B., 785. composition [moulding

Xylos Rubber Co. See MacFarlane, W. C.

Yackel, E. C. See Eastman Kodak Co., and Hunter, W. H.

Yagai, H. See Kamita, K.

Yager, W. A., and Morgan, S. O., transitions in camphor and chemically related compounds. I. Dipole rotation in crystalline solids, A., 12.

Yagi, K., effect of adrenal capsule on regulation of blood-sugar. I. Effect of adrenalectomy. II. Effect of removal of the cortex and of the medulla of

adrenal capsules, A., 1158.

Yaglou, C. P., ionisation of gases, applicable to conditioning air for ventilation, (P.), B., 27. Physical procedures in air analysis: instruments and methods for recording thermal factors affecting human comfort, B., 478.

Yagoda, H., periodic classification of the rare earths, A., 5. Detection of rhenium in the sodium carbonate

bead, A., 580.

and Fales, H. A., separation and determination of tungsten and molybdenum,

A., 1222.

Yaitschnikov, I. S., action of N-sulphuric acid and N-sodium hydroxide on glycine, A., 58. Interaction of glycine and glycylglycine with nicotine, A., 58. and Avetisjan, A. D., barley proteins, A., 534.

and Schvedova, T. V., proteins of wheat

bran, A., 1037.

Yajnik, N. A., Goyle, D. N., Das, I., and Jain, J. R., influence of $p_{\rm H}$ on adsorption from solutions, A., 1457.

Goyle, D. N., and Wadhera, M. L., inversion of sucrose solutions in tropical sunlight, A., 38.

Yakimach, A., radioactive porous bodies,

(P.), B., 542.

Yale, M. W., and Pederson, C. S., optimum temperature of incubation for standard methods of milk analysis as influenced by the medium, B., 567.

Yamabe, T. See Shibata, Y. Yamada, A. See Nishida, Kotaro.

Yamada, K., and Noguchi, Tadao, flavinduline and its derivatives. III., B.,

Noguchi, Tadao, and Oiwa, K., quinoxaline colours, A., 866.

and Oiwa, K., flavinduline and its derivatives. II., IV. and V., B., 1032, 1033.

Yamada, M., glycerol fraction in saké, B., 249.

Yamada, T., oxidation mechanism of mineral oils. VI. Autoxidation of tetralin and decalin, B., 355. Rate of decomposition of turpentine oil peroxide. I.—III., B., 1055.

Yamafuji, K., catalase activation in living cells, A., 1296. Biochemistry of Bombyx mori, L. XVI., A., 1296. Behaviour of the amylase of silkworms living under unfavourable conditions, A., 1554.

Yamafuji, K., and Goto, S., relations between [mitogenetic] radiation, catalase action, and respiration intensity during development of Bombyx mori, L., A., 1289. Blood-amylase and body-strength of some strains of silkworms, A., 1297.

Hiraiwa, I., and Goto, S., amylase activity as a racial characteristic in

silkworms, A., 1297.

Yamagata, H., effect of age on sensitivity to metabolic poisons, A., 1148.

Yamagawa, M., and Nishizawa, T., protamines. VI. Acid hydrolysis of salamines.

mine, A., 96.

Yamagishi, G., enzymic studies on cereals. V. Saccharifying amylase of rice. VI. Saccharifying amylase of well-cleaned rice, A., 1418.

Yamaguchi, H., casting processes for precious metals for dentistry, B., 326.

Yamaguchi, Seizaburo, physiology of respiration of bacteria. II. Intracellular indophenol reaction, A., 1422.

Tamiya, H., and Ogura, Y., isolation and properties of the indophenol-oxidase from yeast cells and heart muscle, A., 1296.

Yamaguchi, Shiro, catalytic dechlorination of tetrachloroethane. I. Decomposition by active carbon. II. Order of decomposition reaction of tetrachloroethane, Ā., 311.

Yamaguchi, Y., and Nakazawa, II., distillation of aluminium, B., 550.

Yamaha, G., isoelectric point of plant protoplasm, A., 1165.

Yamamoto, E., velocity of decomposition of diazo-compounds in water. XVIII.

and XIX., A., 34, 433. Yamamoto, H. See Kamita, K.

Yamamoto, I., toxicity of fish-liver oil and the antitoxic effect of yeast. II. Antitoxic effect of alcoholic extract of yeast, A., 1295.

Yamamoto, K. See Kobayashi, K. Yamamoto, M., stabilisation of vitamin-C

by adrenaline, A., 1567.

Yamamoto, R., kaoliang in starch-making, milling, and "ame" manufacture.

I. Distribution of constituents in kaoliang grains, B., 471.

and Ninomiya, M., germ and outer seed-coat (bran) of kaoliang grains. IV. A wax and hydrocarbon in bran. V. Phosphatides of kaoliang germ, B., 471.

See also Ninomiya, M. Yamamoto, Takemaro, growth of crystals. VIII. Stabilising action of cations which accelerate the crystal growth on the supersaturated solution, A., 560.

Yamamoto, Tatsumi, chlorinated rubber, B., 420.

Yamamoto, Y., passivity of iron and steel in nitric acid solution. VIII.—X., A., 431, 938, 1343. Platinum metals for jewellery, B., 326. Submerged corrosion test, B., 890.
Yamanaka, N., Gerlach's thermomagnetic

e.m.f. in some ferro-magnetic alloys,

A., 1328. See also Okubo, J.

Yamanaka, T., colour reaction for aromatic amines, A., 1281.

Yamane, Y., cause of the effect of added substances on rate of hardening of gypsum cement. IV., B., 61.

Yamasaki, Fujito, embryochemistry of amphibia. VIII. Oxidative processes in giant salamander's eggs, A., 508.

Yamasaki, Fumio. See Nakaya, U.

Yamasaki, Kazumi, cholcie acid [complexes], A., 469. Detection of oxycholesterol and its behaviour in the organism, A., 841. Cholesterol content of different organs during digestion and fasting, A., 886.

Kazuo, catalytic oxidation Yamasaki. effect of complex metallic compounds. XI. Catalytic oxidation in heavy water, A., 1074.

See also Shibata, Y.

Yamasaki, R., and Ichihara, K., composition of rape-seed oil, B., 701.

Yamasaki, S., hydrolysis in the vapour phase, A., 570.

Yamashita, M. See Inoue, H. Yamashita, N. See Gen. Electric Co. Yamauchi, T. See Kondo, Seiji. Yamazaki, K., and Ota, S., ignition

characteristics of light oil for high-speed Diesel [engines], B., 178.

Yamazoye, S., glyoxalase and its co-enzyme. III. Mechanism of the action of glutathione as co-enzyme, A., 1419. See also Nagaya, K.

Yamel, Ltd. See Lacy-Hulbert, D.

Yanagi, K., effect of posterior pituitary preparations on colloid osmotic pressure of serum-protein, water and mineral metabolism of dogs, A., 526.

Yanagihari, D., phenol contents of blood of nephritic and hepatic patients, A.,

Yanagita, M. See Asahina, Y. Yanase, M. See Tadokoro, T. Yancey, H. F., and Geer, M. R., methods for determining grindability of coal, B.,

Yang, C. S. See Liu, D. Y.Yang, M. C. H. See Chi, Y. F.

Yang, P. S., alkaline hydrolysis of polypeptides [derived from] l-alanine,
A., 459. Theory of biurct reaction, A., 459. Hydrolysis of crystalline pepsin by trypsin, A., 759.

See also Levene, P. A. Yanick, N.S. See Ricci, J.E. Yannaquis, N. See Woog, P.

Yannet, H., Darrow, D. C., and Cary, M. K., effect of changes in concentration of plasma-electrolytes on concentration of electrolytes in the red blood cells of dogs, monkeys, and rabbits, A., 357.

See also Harrison, H. E.

Yano, T., and Asai, Y., tests on commercia l photographic printing papers. I.—III., B., 1068.

Yanowski, L. K. See Hynes, W. A.

Yant, W. P., Olsen, J. C., Storch, H. H., Littlefield, J. B., and Scheffan, L., determination of phosgene iu gases from experimental fires extinguished with carbon tetrachloride fireextinguisher liquid, B., 232.

Schrenk, H. H., and Patty, F. A., urinary sulphate as a measure of exposure to benzene, A., 1023.

Schrenk, H. H., Sayers, R. R., Horvath, A. A., and Reinhart, W. H., urinary sulphate determinations as a measure of benzene exposure, A., 373.

See also Brown, C. E., Pearce, S. J., and Schrenk, H. II.

Yardin, H., presence of alkaloids in Sambucus, A., 913.

Yarsley, V. E., solvents and plasticisers, B., 88. Artificial filaments, threads, films, etc., (P.) B., 637.

Yarsley, V. E., coating and impregnating of cellulosic materials, (P.), B., 704. Manufacture of collulose ester compositions, (P.), B., 704.
Yasue, M. See Asahina, Y.

Yasuzumi, G., isoelectric point of animal tissues. III. Striped muscle. Mouse erythrocytes, A., 1286.

Yates, A., composition for treating diseased

trees, (P.), B., 1013.

Yates, E. D. See Quastel, J. H.
Yates, E. L. See Owen, E. A.
Yates, W. J. Sco Shell Development Co.
Yates-Fish, N. L., rotation of dipoles in elastic and viscous media, A., 411

Yatsevitch, G. M. See Peacock, M. A. Yeager, J. F., Hager, A., and Straley, J. M., physiological effects of aliphatic thiocyanates on isolated heart preparation from the reach, Blatta orientalis, A., 890.

Yeager, R., and Winters, J. C., effect of deficient diets on total ash, calcium, and phosphorus contents of bones, A., 509.

Yearian, H. J., and Howo, J. D., universal camera for electron diffraction at 10-100 kv., A., 305. Scattering of high-speed electrons of varying energy, A., 1439.

See also Lark-Horovitz, K.

Yearwood, R. D. E. See Davies, J. G.

Yeates, J. S., cellulose pulp from Phormium(New Zealand flax), B., 634.

Yeaw, J. S., and Shnidman, L., dew point of flue products from manufactured-gas combustion, B., 132. Flue products of industrial fuels; graphical estimation of dew points, B., 1075.

Yelland, N. W., printing surfaces for colour printing, (P.), B., 860.
Yen, A. C. H., and Kurotchkin, T. J.,

preparation of specific bacterial carbohydrate substances by electrolysis, A., 1423.

Yen, S., resonance radiation of mercury 2536.7 A. line, avoiding Doppler broadening, A., 1040. Yen, W. Sco Ts'ai, L. Yen, W. H. Sco Tang, Y. C.

Yendo, Y., production of hydrocarbons from fatty acids by [eatalytic] hydrogenation at high temperature and pressure, B., 10.

Yensen, T. D., approach to the theoretical magnetisation curve, A., 17.

and Ziegler, N. A., magnetic ageing of iron due to oxygen, B., 236. Effect of carbon, oxygen, and grain size on magnetic properties of iron-silicon alloys, B., 838.

Yerbury, C. C. See Weisman, A. I.

Yerzley, F. L., irregularities in thermionic emission from tungsten, A., 1439.

Yesair, J. See Cameron, E.J.

Yi, C. See Tsai, C. Yi, C. L., and Read, B. E., antipyrctic action of a new antipyrine derivative, A., 1021. Yi, C. S. See Zé, N. T.

Yli-Uotila, T. See Kauko, Y. Yo, K. See To, S. Yoder, R. E. See Naftel, J. A.

Yohe, G. R., and Vitcha, J. F., alkyl ethers of $\beta\beta$ -di-p-hydroxyphenylpropane. I. Dialkyl ethers, A., 200.

Yekota, K. See Keimatsu, S. Yokoyama, J. See Ochiai, E. Yokoyama, K. See Asahina, See Asahina, T. Yokoyama, S. See Ueno, S.

Yonese, C. See Ueno, S.

Yonge, C. M., nature and permeability of chitin. II. Permeability of uncalcified chitin lining the foregut of Homarus,

Yorke, II., artificial wool, B., 230.

Yorks, K. P., and Willard, M. L., phthalic acid as reagent for optical identification of some metals and alkaloids, A., 695.

Yorkshire Tar Distillers, Ltd., and Belford, J. S., piperidino pentamethylenedithiocarbamate and treatment of benzol

fore-runnings, (P.), B., 1143. and Stocks, J. A., tar-distillation and similar stills, (P.), B., 357.

Yorston, F. H., supposed effect of $p_{\rm H}$ on freeness [of wood pulp], B., 94. See also English, H., and Mitchell, C. R.

Yoshlda, II. See Kondo, Seiji. Yoshida, M., detoxicating hormone of the liver. LX. Correlation between sedimentation rate of blood and detoxicating

power of liver, A., 645. Yoshida, S., Al $K\beta$ bands from Al-Cu

alloys, A., 538.

Yoshida, T., reaction between ammonia and carbon dioxide, A., 1344.

Yoshida, Taro, platinum plating, B., 329. Yoshida, Tomizo. See Sasaki, Takaoki.

Yoshida, U., Matano, S., and Watanabe, M., method of measuring the net density of a substance which dissolves a little in a liquid, A., 1225.

Nagata, S., and Mitsuki, C., effect of sudden heating on the recrystallisation of metals, A., 1186.

Yoshii, T., determination of surface temperatures, A., 581. Heat balance of clinker coolers, B., 498. Insulating brick of cement rotary kiln, B., 1042.

Yoshii, Y., [cement-kiln] slurry rings. III., B., 148.

Yoshikawa, T., effect of sulphur administration on carbohydrate metabolism, A., 104.

Yoshimi, M. See Osugi, S.

Yoshimura, H., glass electrode potential. I., A., 682. Determination of blood-p_H by the glass electrode. IV. Potential drift of quinhydrone electrode applied to solutions of alkaline buffer, aminoacids, or proteins, or to plasma. V. Glass micro-electrode and the $p_{\rm H}$ of arterial, venous, and capillary blood, A., 1401, 1530.

Yoshimura, K., Hiwatashi, Y., and Sakomoto, T., organic bases, especially spermine, in the muscle of higher animals. I. and II., A., 360, 1535.

See also Tadokoro, T.

Yoshimura, S., Lake Akanuma, a sidero-trophic lako at the foot of volcano Bandai, Hukusima Prefecture, Japan, A., 447.

Yoshimura, Y., coal for coke manufacture in Manchukuo, B., 480.

Yosinaga, T. See Sakakibara, I. Yosioka, I. See Asahina, Y. Yost, D. M., and Anderson, T. F., Raman

spectrum of arsenic trichloride, A., 9. and Dickinson, R. G., diffusion and absorption of neutrons in paraffin spheres, A., 1044.

Lassettre, E. N., and Gross, S. T., Raman spectra of carbon and silicon

tetrafluorides, A., 776. See also Anderson, T. F., Bonner, W. D. Garner, C. S., Ridenour, L. N., and Stitt, F. B. Yothers, W. W. See Hill, S. B., jun.

Yonden, W. J. See Kraybill, H. R.

Youker, M. A. See Daudt, H. W. Youmans, G. P. See Hoffstadt, R. E. Young, A. A. See Eastman Kodak Co.

Young, A. C., influence of a magnetic field on dielectric constants of gaseous and liquid nitrogen and oxygen, A., 408.

Young, A. H. See Gen. Electric Co. Young, A. J. See Marconi's Wireless Telegraph Co.

Young, B., theoretical heat requirement for burning of cement, B., 193.

Young, C. A., Vogt, R. R., and Niouwland, J. A., reaction of butylacetylene with oxygen, A., 310. Colorimetric determination of peroxides in unsaturated compounds, A., 1005. Reactions of alkylacetylenes. XIV. Reaction of butylacetylene with hydrogen bromide, A., 1359.

Young, C. B. F., technological developments in the plating industry, B., 202. Plating rhenium and rhenium-nickel

alloys, B., 795.

and Gould, N. A., nickel-cobalt alloy plating from acid sulphate solution, B., 551.

and Taormina, S. C., silver-plating to specifications, B., 414.

Young, C. H., wool dyeing, B., 15. Young, Chu H., use of calcium hydroxide and sodium nitrate in determination of total sulphur in coal, B., 530.

Young, C. O. See Carbide & Carbon Chem.

Young, D. M. See Allen, C. F. H.

Young, F. G., glycogen and the metabolism of carbohydrate, A., 1411. Identity of the indophenol-reducing substances in brain tissue, A., 1567.

See also Oakley, H. B

Young, G. H., Keith, W. J., and Honess, A. P., crystal studies on p-toluenesul-I. Nitrogen-substituted phonamides. sulphonanilides. II. Nitrogen-substituted sulphon-o-toluidides. III. Nitrogen-substituted sulphon-p-toluidides, A., 784.

Young, H. B., new developments and lampblack problems with reformed natural gas, B., 726.

Young, H. C. See Sanborn, C. E.

Young, H. D., and Van Schaack Bros. Chem. Works, Inc., cyanide composition, (P.), B., 1032. Wagner, G. B., and Cotton, R. T.,

vacuum fumigation of flour products with hydrocyanic acid, B., 1123. See also Cotton, R. T.

Young, J., and Ruch, E. H., variations of smoked sheet rubber, B., 31.

Young, J. H., Hubbell, D. S., and Robertson Co., H. H., protected metal articles [for buildings], (P.), B., 938.

and Robertson Co., H. H., stable fireresisting hydrocarbonaccous material, (P.), B., 822.

See also Carrier, N. II., and Du Pont de

Nemours & Co., E. I. Young, J. W., bacterial reduction of sulphates, A., 760.

Young, L., determination of phytic acid, A., 536.

Young, L. A., interaction of nuclear particles, A., 134.

See also Morse, P. M.

Young, M.J., and Olson, A.R., mechanism of substitution reactions; substitution of bromine and chlorine in a-bromo- and a-chloro-phenylacetic acids by chloride and bromide ions in aqueous solution, A., 1106.

Young, M. T., and Smith, G. L., field plot and cage tests for [cotton] boll-weevil

control, B., 1118.

Young, O. C., jacketed cold-storage room, B., 79. Relation between coil area. temperature of cooling medium, and dehydration in a cold-storage room, B., 79. Cooling and freezing curve for fish. H., B., 296.

Young, P. A., distribution and effect of petroleum oils and kerosenes in potato, cucumber, turnip, barley, and onion,

B., 423.

Young, P. L. See Standard Oil Develop-

Young, R. C. K., electric resistance heaters, (P.), B., 1001.

Young, R. P. See Hammick, D. L. Young, R. T. See Street, J. C.

Young, R. V. See Gilman, H.

Young, T. F., and Groenier, W. L., heat content of sodium chloride in extremely dilute aqueous solutions, A., 429.

Young, V. A., Ware, J. O., and Pope, O. A., control of potash hunger and fusarium wilt in cotton, B., 116.

Young, W. See Imperial Chem. Industries. Young, W. C., and Jasaitis, Z., preparation of glass helices for use in fractionating columns, A., 446.

Young, W. G., Hartung, W. H., and Crossley, F. S., reduction of aldehydes with aluminium isopropoxide, A., 316.

and Winstein, S., dibromide method of determination of butene mixtures, A., 310. Allylic rearrangements. III. Action of zinc on crotyl and methylvinylearbinyl bromides, A., 588.

Winstein, S., and Prater, A. N., allylic rearrangements. II. Magnesium crotyl and methylvinylearbinyl bromides, A., 451.

See also Winstein, S.

Young, W. T., and Kersten, H., effect of ultrasonic radiation on electro-deposits, A., 1077.

Sco also Kersten, II.

Youngburg, G. E., phosphorus metabolism. V. Relation between urinary phosphate and blood-phospholipin during absorp-

tion of fats, A., 886.

Youngken, H. W., microscopy of powdered desiccated endocrine organs, A., 224.

Microscopy of powdered, desiccated thyroid and suprarenal [adrenal], B., 475.

Youngstown Sheet & Tube Co. See Reinhardt, G. A.

Ypsilanti, (Gross-Prinz). See Kohlrausch, K. W. F., and Reitz, A. W.

Yriat, M., Dagnino, A., and Bianchi, A. E., action of di-iodotyrosine in thyrotoxicosis, A., 633.

Yu, T. F., and Chen, H. K., seed treatments for controlling stripe disease of hulless barley, B., 36. Treatment of hulless oats to prevent covered smut [Ustilago levis (Kell. and Sw.), Magn.], B., 36.

Yuan, H. C., and Tsao, M., Ullmann reaction, A., 196.

Yuan, I. C. See Lim, R. K. S. Yudkin, J. See Stephenson, M.

Yuen, D. W. See Addis, T.

Yuen, K. C. See Small, L. Yuen, Q. H. See Hance, F. E.

Yunussov, S. See Konovalova, R. Yurgenson, M. P. See Blagovestschenski,

Yuster, S. T., theoretical consideration of ideal liquid inclusions, A., 699.

Yuster, S. T., and Reyerson, L. H., precision pyknometer for liquids, A., 305. See also Reyerson, L. II.

Yvon, J., fluctuations in density at the critical point, A., 149. Kinetics theory of liquids and diffusion of light, A., 407. Molecular theory of the dielectric constant of non-polar liquids, A., 408. Yzu, L. See Catalán, M. A.

Zaayer, W. H. Sco Böeseken. J. Zabel, W. P. See Gen. Electric Co.

Zaboev, S. A., rhodanisation of organic compounds, A., 716.

Zaborovskaja, V. Sec Nametkin, S. S. Zabriskie, J. W. Sec Eastman Kodak Co. Zabrodina, A. S. Sec Nametkin, S. S.

Zacharewicz, IV., action of selenium dioxide on camphene and pinene, A., 1114.

Zacharias, J. R. See Kellogg, J. M. B. Zachariasen, W. H., structure of radicals in crystals, A., 1053. Crystal structure of germanium disulphide, A., 1326.

Zacharov, M. Sce Berthold, R. Zacharov, V. V., and Zacharova, N. V., oxidation of stannous chloride by

permanganate, A., 304. Zacharova, M. I., and Mlodziejewski, A. B., thermal examination of chemical compounds in the system zine-magnesium, A., 1454. Zacharova, N. V. See Zacharov, V. V.

Zachartschenko, G. J. Sce Izbekov, V. A. Zack, M., arc-welding electrodes, (P.), B., 156.

Zack, S. I., magnetite filters in sewage treatment. B., 573.

Zaeslin, H. See Ruggli, P. Zagami, V., antineuritic vitamin(- B_1) contents of oil-rich seeds, A., 529.

and Famiani, V., comparison between nutritive value of somo legumes and some cereals, A., 368.

Zaganiaris, J. N., and Varvoglis, G. A., Twitchell's reagent. I. Twitchell's reagent as promoter of esterification, A., 1487.

Zagrjatskaja, V. D., production of furfuraldehyde and acetic acid as by-products in hydrolytic treatment of agricultural waste products, B., 584.

Zaharescu-Karaman, N., Alexiu, M., and Ursu, A., magnesium in parturient women and in the new-born, A., 1009. Alexiu, M., and Ursu, I., blood-magnesium in pregnant women, A., 497.

Zahn, C. T., Harrington, E. L., and Goudsmit, S., absorption cross-sections of thermal neutrons, A., 1313.

See also Heydenburg, N. P., and Segrè, E. Zabn & Co., G.m.b.H., zinc-white, (P.), B., 943.

Zaidan Hojin Rikagaku Kenkyujo, Sahashi, Y., Takeuchi, K., Shimamoto, T., and Iki, T., synthetic preparation of β - (or 10-) hydroxycamphor, (P.), B., 1234.

Zaidan Hojin Ryoshoku Kenkyu-Kwai. See Sasaki, Rinjiro.

Zaides, A., reaction of ferric salts with organic acids, A., 691.

Zaikovsky, W. M., development of intermolecular and intramolecular chains in oxidation of n-hexane, A., 309.

Zaitzev, A. A., effect of electric and magnetic fields on the properties of gases, A., 272.

Zaitzev, I. A. See Arbusov, A. E. Zaitzeva, A. A., effects of soil drought on photosynthesis and respiration in plants, A., 1162.

Zajic, E. See Spāth, E. Zak, H. See Bisko, J.

Žák, J. See Herzig, J., and Žákova, J.

Zakomorny, M. See Chrząszcz, T. Žákova, J., and Žák, J., determination of gluten in grain and flour, B., 215.

Zakrshevski, E., effect of the irritation of vagus and sympathetic nerves on composition of blood, A., 1009.

Zakrzewski, Z., and Fuchs, H. J., microdetermination of nitrogen by Kjeldahl, A., 950.

Zakutskaja, M. A. See Gusinskaja, S. L. Zalesskaja, T. E. Sce Favorski, A. A., and Salkind, J. S.

Zalesski, V. A., rapid evaluation of sodium silicate, B., 931.

Zaliope, M., cooking of salted-out soaps, B., 27.

Zalogin, N. G., and Tschernov, E. N., removing sulphur dioxide from flue gases with moist limestone, B., 232.

Zaloom, J. A., treatment of nuts, (P.), B., 1126.

Zamboni, C., action of fixatives added to Portland cement, B., 545.

Zambotti, V. See Bassani, B.

Zamjatina, L. A. See Voitova, E. V. Zamoruev, G. M. See Urazov, G. G.

Zamoruev, V. M., relation between nature of flakes and methods of steel production, B., 195.

Zampetti, R. See Teodoro, G. Zamrzla, Z. See Eisler, O. Zander, H. V., tubular heat-exchange apparatus for fluids, (P.), B., 960.

Zandstra, T. See Roberts, A.

Zane, A. H., automatic tar dehydrator, B., 727.

Zanella, B., extraction and determination of small amounts of morphine in organs, A., 536.

Zanetta, A. See Pratesi, P.

Zanetti, J. E., and Sickman, D. V., synthesis of deuteroacetaldehyde, A., 316. Trideuteroacetdeuteraldehyde, A., 1489.

Zanini, R. See Besozzi, G. L. Zanke, W. See Reinartz, F. Zanko, A. M., and Bursuk, A. J., application of 5:7-dibromo-8-hydroxyquinolinc to determination of small amounts of iron, titanium, and aluminium in mixtures, A., 953.

and Butenko, G. A., adsorptive properties of the residue remaining after treating ignited kaolin with hydro-

chloric acid, B., 406.

Zaparanick, J. See Borghetty, H. C.

Zapatero, E., hygienic control of milk, B., 952.

Zapevalov, G. G. See Anissimov, S. M.

Zapf, G. See Sieverts, A. Zapffe, C., removal of iron and manganese from water, (P.), B., 46.

Zapior, B. See Kamienski, B.

Zaporojanu, I. See Vladescu, I. Zappacosta, M., arginine as cause of the non-specificity of analytical methods for blood-guanidine, A., 356. Methyl derivatives of guanidine in blood: solitary and renal hypertension, A., 746. Indole and skatole content of the blood in kidney disease, A., 752.

Zappi, E. V., and Labriola, R., determination of carbon and hydrogen by semi-

micro-combustion, A., 1529.

Zaprometov, B. G., and Kamsolova, S. P. synthesis of hydrosols of sparingly-soluble salts by electrolysis. III. Copper arsenate and arsenite hydrosols, A., 1006.

Zaprometov, B.G., and Kolmakov, B.P., Central Asiatic colloidal clays as adsorbents, B., 932. Action of electrolytes (mineral fertilisers) on soil microstructure, B., 949. and Schamsiev, A., determination of

plasticity of clay, B., 932.

and Smoligina, E. I., synthesis of hydrosols of sparingly-soluble salts by electrolysis. II. Ferric phosphate hydrosols, A., 794.

Zaprometov, V. G., phenomenon of induced solution of metals in solutions of

neutral salts, A., 1206.

and Smolina, L. B., electro-osmosis as a method of studying the process of peptisation of nickel and cobalt

hydroxides, A., 1201.

Zardalischvili, J. I. See Agafonov, A. V.

Zareva, T. V. See Lukirski, P. I.

Zaring, I. I., recovery of fluorine in con-

centration of phosphoric acid, B., 639. Zaus, E. A., and Fosdick, L. S., antipeptic

influence of gastric mucin, A., 1288.

Zavalkov, V. M., technology of polymeris-

ation of butadiene, B., 32.

Zavjalov, N. D. See Besborodov, M. A. Zdanov, V., compressibility coefficients of erystals, A., 1192.

Zdanovski, A. B., and Rjabtschikov, D. I., Ansh-Bulat sulphate lake, and possibilities of its exploitation, A., 48.

Zdralek, O., and Wrana, J., welding of wires with condenser discharges, B., 890. Zdrazil, R., fixation of complement in cancer, A., 1014. Immunising characteristics of lipin extracts in cancer, A., 1014.

Zé, N. T., and Po, W. W., influence of an electric field on absorption spectrum of sodium, A., 1. Absorption spectrum of rubidium, A., 769. Absorption spectrum of potassium, A., 1167. and Yi, C. S., displacement of the

higher members of the principal series of rubidium by inert gases, A., 1167.

Zeberg, E. F., atomic equilibria in hydro-carbon molecules of the CH:CCH₂R series, A., 51.

Zebrovski, S. P., parallel employment of low- and high-frequency transformers for charging Cottrell precipitators, B., 332.

Zechmeister, L., carotenoids and their physiological importance, A., 1037. Béres, T., and Ujhelyi, E., pigmentation of the ripening gourd blossom. II., A., 651.

and Cholnoky, L. von, lycoxanthine and lycophyll, two natural derivatives of lycopene, A., 452. Thirty years of chromatography, A., 816. Apparatus for [quantitative] semi-micro-hydrogenations, A., 1085. Paprika dye. IX. Partial degradation of capsanthin, A., 1111.

and Pinczési, I., chitobiose octa-acetate

from beetles, A., 1286.

and Toth, G., cellotriose, A., 56. Polyose of yeast membrane. II., A., 523. Action of liquid ammonia on cellobiose

octa-acetate, A., 1366. and Tuzson, P., lipochromes of the frog (Rana esculenta), A., 499. Colourless compounds which accompany carotenoids in plants, A., 533. Lipochrome of pig's liver, A., 749. Mandarin pigment. II., A., 912. Polyene pigments of the orange. I., A., 1435. Zeeman, P. See De Gier, J.

Zeerleder, A. von, recrystallisation and crystal growth in aluminium, A., 1053. Development of electrolytic production of antimony in France up to 1925, B., 201. Zeerleder, A. von, technical and economic factors in production of aluminium sand- and chill-castings, B., 1159. Temperature measurement of aluminium ingots, B., 1211.

and Irmann, R., mechanical properties of aluminium and its alloys after pro-

longed heating, B., 996.
Irmann, R., and Burg, E. von, compression of aluminium and aluminium alloys, B., 1159. Zehender, F. See Karrer, P.

Zehnder, L., extensive results of the classical simplest elastic hydrogen atom, A., 134.

Zehner, W. R., and Bethlehem Steel Co., fine sinter returns, (P.), B., 458.

Zeide, O., and Petrov, K., altax (benzothiazyl disulphide) as a vulcanisation accelerator, B., 655.

Zeidenberg, K. A., and Iljinskaja, M. A., depression of vapour pressure of ammonia over solutions of ammonium and calcium nitrate in liquid ammonia, B., 100.

Zeidler, E. See Hüttig, G. F. Zeidler, G. Seo Wolff, Hans. Zeile, K., cytochrome-c. IV., A., 109.

Zeiller, O. Sco Geiger, H.

Zeipel, E. von, lattice constant of galena with new Röntgen spectrometer, A., 783. Zeise, H., theory of the Freundlich isotherm, A., 1196. Chemical constant and thermodynamic potential of nitric oxide gas and the gaseous equilibrium 2NO+ $O_2 \rightleftharpoons 2NO_2$, calculated from spectroscopic data, A., 1462.

Zeiss, C., and Papirindustriens Forskningsinstitut, apparatus for measuring by means of photo-electric cells the reflecting power of surfaces, (P.), B., 605.

Zeiss, W., and Zeiss Chem. Fabr. G.m.b.H., W., metal powders or mixtures of metal and metal oxide powders, (P.), B., 938.

Zeiss Chemische Fabrik G.m.b.H., W. See

Zeiss, W. Zeisset, W. See Heide, C. von der. Zeitler, A. A., bubble still, (P.), B., 962.

Zeitlin, A. N., determination of oxides of nitrogen in gaseous mixtures, A., 177. See also Adadurov, I. E.

Zeitlin, S. G., boron content of oil-field waters, A., 699.

Zeldenrust, J., anterior pituitary hormones and formation of experimental tar carcinoma, A., 230.

Zelenetzki, M. S., and Geliman, N. D., determination of high-molecular hydrocarbons in air, B., 573.

Zeleny, J., illumination of menisci, A., 1085. Brasefield, C. J., Bock, C. D., and Pollard, E. C., α-particles from lithium ions striking hydrogen compounds, A., 401.

Zeliger, E. N. See Besborodov, M. A.Zelikman, I. F., and Liubitzki, K. K., conditions to be followed when using active carbon in [beet-]sugar manufacture, B., 211. Revivication of activated carbons [in sugar clarification], B., 248.

and Raiser, A. S., sugar storage, B., 212. Zelinski, N. D., and Juriev, J. K., desulphurising Sterlitamak gasoline with aluminium chloride, B., 402.

and Levina, R. J., composition of cracked gasoline from the Winkler-Koch and the Dubrovai units, B., 403.

and Schujkin, N. I., catalytic condensation of Surachan and Balachan benzines, B., 581.

Zelinski, N. D., and Titz, I. N., desulphurisation of crude benzone, petroleum oils, shale oils, and other hydrocarbon oils containing sulphur, (P.), B., 136.

Zell, F. See Högler, F. Zeller, A., transformation of higher fatty acids into carbohydrate during germination of pumpkin seed. I., A., 649. See also Edlbacher, S.

Zeller, M., and Röchling, R., [plate for] colour photography, (P.), B., 763.
Zeller, P. J. A. Sce Steel, E. W.

Zellner, C. N., and Dougherty, G., methyl and phenyl derivatives of nitrophthal-[nitrophthalaz-1:4-diones], hydrazides A., 1391.

Zellstoff-fabrik Waldhof, and Claus, Walter, wool-like artificial fibres, (P.), B.,

and Radestock, H., crêped or crisped artificial yarns, (P.), B., 187.

See also Faust, O., and Kiel, F. Zeltzburg, A. I. See Plissov, A. K. Zelvenski, J. D. See Juschkevitsch, N. F.

Zemba, J. W. See Dow Chem. Co. Zemlianski, N. I. See Kuzmin, V. A. Zemplén, B. See Simon, Alexander.

Zemplén, G., and Gerecs, A., robinobiose and kaempherolrhamnoside, A., 56. Gerecs, A., and Hadácsy, I., hydrolysis

of acetylated carbohydrates, A., 1234. Gerecs, A., and Rados, M., behaviour of glucose towards thiocyanic acid, A., 709.

Zener, C., effect of temperature on reflexion of X-rays by crystals. II. Anisotropic crystals, A., 273. Ferromagnetism and liquid mixtures, A., 419. Modification of the Heitler and London method, A., 1185. Hall coefficients of alkali metals, A., 1328.

and Bilinsky, S., effect of temperature on the reflexion of X-rays by crystals. III. High temperatures; allotropic crystals, A., 1053. Intensity of X-rays reflected from zinc, A., 1325.

and Jauncey, G. E. M., effect of temperature on reflexion of X-rays by crystals. I. Isotropic crystals, A., 273.

Zenger, E. See Fink, H.

Zenghélis, C., and Evangélidis, K., action of silent electric discharge on nitric oxido; production of active nitrogen, A., 170.

Zenin, N. S. See Pickat, A. K.

Zeolite Chemical Co. See Tschirner, F. Zerban, F. W., lead precipitate [in sugar clarification], B., 1063. Glucosefructose ratio and polarising constants of raw cane sugars, B., 1173.

and Sattler, L., turbidity in sugar products. IV. Preparation of raw sugar solutions for determinations of colour and turbidity, B., 808.

Zerfas, L. G. See Fouts, P. J.

Zerfoss, S., and Willard, M. L., determination of cuprous oxide, cupric oxide, and copper in mixtures; microscopical method, A., 1082.

Zermuehlen, A. E., and Allen, T. C., testing fly sprays: procedure in testing petroleum-base insecticides by the settlingmist method, B., 814.

Zero, W. See Smolenski, K. Zervas, L. See Bergmann, M. Zetzmann, M. See Seifriz, W.

Zeyen, K. L., welding of alloy steels, B., Welding of high-tensile steel, B., 196. Weld susceptibility, B., 1099.

Zeynek, R., and Dimter, A., composition of the gelatinous mass from Rhizostoma cuvieri, A., 227.

Zickermann, C. See Krüger, F.

Zickwolf, H., crushing or similar machine for solid and semi-solid material, particularly foods of animal and vegetable origin, (P.), B., 400. Zieber, B. See Kurtz, S. S., jun.

Ziegelmayer, W., new means of obtaining and using fat and meat in Germany, B., 418.

Ziegler, A. See Michon, P., and Thiesse, X. Ziegler, K., significance of organo-compounds of alkali metals in synthesis, Ā., 1090.

Ziegler, M., shot effect of secondary emission. I., A., 263.

Ziegler, N. A. See Yensen, T. D.

Ziegler, P. T. See Miller, Russell C.

Ziegler, R. See Mecke, R.

Ziegler, W. M. See Caldwell, W. T.

Ziegner, H., filaments from a liquid raw material which may be solidified by the action of liquid or gaseous media, (P.),

B., 269. Ziegs, C., asphalt [road] surfacings with bitumen chips, B., 372

Zieler, W. Sco Scherer, R.
Zieley, J. D., and Amarel Corp., catalyst, and its production and use, (P.), B., 731. Zieliński, M. A., phosphorus in the early development of the frog, A., 1018.

Ziemecki, S., and Narkiewicz-Jodko, K., variation of cosmic ray intensity with height in the atmosphere, A., 919.

See also Narkiewicz-Jodko, K. Ziener, dry purification of mercury, B., 936. Zieren, A., manufacture of sodium sulphide from sodium sulphate by reduction with hydrogen or other reducing gases, (P.), B., 931.

Ziergiebel, H., extraction of felspar from German rocks by flotation, B., 191.

Ziese, W., constitution of starch and mode of action of starch-splitting enzymes, A., 194.

See also Klein, Gustav.

Zieseeke, W. See Abderhalden, E.

Zijp, C. van, micro-reaction of caffeine with iodine-potassium iodide, A., 1006. Berberine as a microchemical reagent, A.,

Zikeev, T., substitute for pyrogallol in gas

analysis, B., 738.

Zilberg, I. G. See Magidson, O. J.

Zilberkveit, E. K., and Drobinskaja, V. P., oxidative dyeing [of leather], B., 804. and Zubin, A. M., mechanism of oxidative dyeing (diffusion of the dye into the fibre), B., 982.

Zilberman, G. M., Romanova, P. M., and Tsehutschupal, A. I., synthesis of rezyls, new resins for nitro-lacquers, B., 847.

Zillgitt, C. J., pulverising jaw crusher, (P.), B., 577.

Zilva, S. S., effect of incomplete diets on concentration of ascorbic acid in organs of rats, A., 905. Reversible enzymic oxidation of d-glucoascorbic acid, A., 1149. Vitamin-C requirements of the guinea-pig, A., 1160. See also Kellie, A. E., and Sansome, F. W.

Zima, A. G., mechanical and metallurgical aspects of present-day oil-production

equipment, B., 993.

Zimbon, E. Seo Donahue, T. F., jun.

Zimmer, E., silver ores of Freiberg [Saxony], A., 585.

Zimmer, F., nitrocellulose and combination lacquers, B., 29.

Zimmerer, M. R. See Dougherty, E. E. Zimmerli, A. See Du Pont de Nemours & Co., E. I.

Zimmerli, W. F. See Du Pont de Nemours & Co., E. I.

Zimmerman, B. G., and Lochte, H. L., polyazines. I. Structure of the dimethylaziethan of Curtius and Thun,

Zimmerman, E., bactericidal action of organic acids towards Bang's bacillus,

Zimmerman, E. K., and Carpenter & Co., Inc., L. E., [non-inflammable] coating composition, (P.), B., 110.

Zimmerman, L. M. See Soskin, S.
Zimmerman, P. W., and Hitchcock, A. E.,
response of roots to "root-forming"
substances, A., 532. Effects of light and dark[ness] on responses of plants

to growth substances, B., 1171.

Hitchcock, A. E., and Wilcoxon, F., esters as plant hormones, A., 1034.

See also Hitchcock, A. E. Zimmerman, R. E. See Whetzel, J. C. Zimmerman, R. L. See Standard Oil Co. of Indiana.

Zimmermann, G. See Baukloh, W. Zimmermann, J., erythrodiol, A., 610. Zimmermann, J. C. See Raiford, L. C. Zimmermann, K., Westerwald clays, B., 789. Tests with vacuum presses [for

ceramic materials], B., 835. Zimmermann, W. See Ruzicka, L.

Zimmet, D., nickel nitroprusside reaction for reduced glutathione, A., 597. Biological analogy of bile acids and sterols; influence of bile salts on growth and morphogenesis of tadpoles, A., 1414. Reduced glutathione content of certain oil-bearing nuts, A., 1435. Nickel nitroprussido as external indicator for iodometric determination of reduced glutathione, A., 1436.

and Ferrière, H. D., sensitivity and stability of the nickel nitroprusside reaction for reduced glutathione, A.,

Zink, F. J., stirring air within desiccators, A., 47.

Zinke, A., and Gesell, E., perylene and its derivatives. XLV. A tribenzoylpery-

lene, A., 607.

Penecke, W., and Hanus, F., peryleno and its derivatives. LXVII. Vat dye of the isoviolanthrone series from perylene-1:12-quinone, A., 606.

and Pongratz, A., perylene and its derivatives. XLVIII. The perylene tribromide of K. Brass and E. Clar, A., 1102.

and Schieszl, K. J. von [with Hanns, F.], perylene and its derivatives. XLVI.

A perylene-1:12-cycloperoxide, A., 607.

Zinn, R. E., and Victor Chem. Works, oxidation of phosphorus, (P.), B., 453.

[Spot-]coating of flakes [for water softening], (P.), B., 575.

See also Victor Chem. Works.

Zinnitz, F., acetylcholine and eserine, A., 1295.

and Bergmann, F. von, cumulative and toxic actions of cardiazol and coramine, A., 1022.

Zinoviev, A., and Gurevitsch, I., nature of sediments formed on cooling sunflowerseed oil, B., 379.

Zinovitsch, V. M. See Adadurov, I. E.

Zintl, E., and Haucke, W., orthonitric

acid, H₃NO₄, A., 16. and Loosen, K., silicon disulphide, a fibrous inorganic compound with chain molecules, A., 16.

and Woltersdorf, G., metals and alloys. XVIII. Lattice structure of LiAl, A., 143.

Zintschenko, K. E., solubility of gases in crude oils, B., 355.

Zipf, K., and Hoppe, H., detoxication of local anæsthetics by "cardiazol," A., 1552.

and Thurau, M., effect of vitamin-Con fermentation by yeast and on lactic acid production in B. aërogenes cultures and muscle pulp, A., 112. Zipperer, L. See Herning, F.

Zipprich, B., disintegration of beryllium with fast protons, A., 131. Double ionisation chamber for detection of corpuscular particles, A., 181.

Zirkle, R. E., biological effectiveness of a-particles as a function of ion concentration produced in their paths, A., 766.

and Aebersold, P. C., relative effectiveness of X-rays and fast neutrons in

retarding growth, A., 632.

Zirkler, J., distribution of thorium-C'' in thallium salt solutions, A., 282. Isotope separation for thallium by valency exchange? A., 540. Anomalous distribution of thorium-C" between uni- and ter-valent thallium ions, A., 791. Irregular distribution of thorium, C", A., 918.

Zirpolo, G., sulphur in biology: action on

cell evolution, A., 649. Zisman. See under Zysman.

Ziurys, E. J. See Lichty, L. C. Zivadinović, R. D. See Houben, J., and Pushin, N. A.

Zizine, P. See Lesné, E.

Zlatarov, A., cadmium and oxidation enzymes, A., 758.

and Kaltscheva, D., effect of metallic salts on lactic acid fermentation, A., 524.

Zlateff, I., refraction of buffalo's and goat's milk sera obtained with copper sulphate, A., 1287.

Zlobin, V. N. See Kireev, V. A. Zlotnikova, O. L. See Kaschtanov, L. I.

Zlotowski, I., nature of the residual current [observed with the moving cathode], A., 293. Structure and properties of the insulating layers formed on aluminium electrodes during anodic polarisation,

Zmaczynski, E., reaction of sulphur and keto-alcohols in glycerol containing iron,

A., 592.

Znamenski, A. V., Tentik emery, B., 320. Determination by the adsorption method of the mean specific surface of finely granular powders, B., 610. Emeries. II. Rôle of emery in cement mixtures, B., 991.

Zobell, C. E., bactericidal action of seawater, A., 1562.

Zoblna, E. A., Krasnikova, N. S., and Michailov, A. N., influence of method of preparation and sulphitation on tanning properties and physicochemical indexes of pine extracts, B., 420.

Zoccoli, A. G., and De Niederhansern, A., effect of hæmorrhage on hæmoglobin content and distribution in erythrocytes,

A., 1399.

Zocher, H., application of the theory of thermal oscillations to the field of mesophases (liquid crystals), A., 786.

Zöllner, E. See Rumpelt, H. Zoellner, E. A., quantitative studies of organometallic compounds, A., 598. Zoet, A. G., specificity of hybrid proteins,

A., 877.

Zola, J. C., and Duplate Corp., [cement for] laminated glass, (P.), B., 695. See also Fix, E. L.

Zolin, A. I., reactions in thin films, A.,

Zolina, V., elastic vibration of an anisotropic liquid, A., 1450.

Zollinger, \hat{R} ., cements for special purposes,

B., 1154.

Zolog, M., and Comsia, O., action of arsenobenzeno derivatives on experimental trypanosomiasis, A., 1147. Rôle of the reticulo-endothelial system in the chemotherapeutic action of arsenobenzene derivatives. I. and II., A., 1147.

Zolotarev. See under Solotarev.

Zolotuchin, V. K., determination of potassium carbonate in sunflower ash, A., 909. Zombory, L. von. See Koch, A., and Strebinger, R.

Zon, L., physical chemistry of silver stain-

ing, A., 913.

Zondek, B., inhibitory effect of follicular hormono on the anterior lobe of tho pituitary gland, A., 389. Chromato-phorotropic principle (intermedin) of the pars intermedia of the pituitary, A., 643. Tumour of the pituitary induced with follicular hormone, A., 762.

Zonis, S. A. See Salkind, J. S., and

Teterin, V.

Zopoth, J., cultivation of B. diphtheriæ on telluric media, A., 524.

Zorin, V. P. See Anikeev, N. P. Zorn, C. See Muntwyler, E.

Zorn, H. See Schwab, G. M.

Zorn, W. M., Eickhoff, T. H., and Low Temperature Processing Co., treatment and concentration of liquids by freezing, (P.), B., 130.

Zosimovitsch, D. P., and Butschkivski, M. V., X-ray study of coatings of alloys deposited in galvanic elements,

B., 842.

See also Plotnikov, V. A.

Zotos, G., Zotos rotating glass-melting furnace, B., 543.

Zotov, P., chalk as a [paper] filler, B., 186. Zotova, N. See Berenschtein, D.

Zouckermann, R., and Freymann, R., absorption of various alcohols at high

frequencies, A., 1051.

Zoutendyk, A. See Grasset, E.

Zrike, E., and Lindwall, H. G., quinoloneacids from oxindolo derivatives, A., 342.

Zrykina, L. M. See Rybinsky, S. B. Zschacke, F. H., borax problem in manufacture of enamels and glazes, B., 60.

Zschäbitz, H., tomato refractometer in practice, B., 217.

Zschimmer, E. See under Zschimmer & Schwarz Chem. Fabr. Dölaw.

Zschimmer, F. See under Zschimmer & Schwarz Chem. Fabr. Dölaw.

Zschimmer & Sehwarz Chemische Fabrik Dölaw, paper, (P.), B., 736.

Sce also Jochem, O.

Zuber, K., separation of mercury isotopes by a photochemical method, A., 36. Line absorption of mercury vapour for individual hyperfino structure components of the 2537 A. line, A., 1310. Separation of mercury isotopes, A., 1440. Zubin, A. M. See Zilberkveit, E. K.

Zucchinetti, control of fineness of grinding

of cements, B., 148.

Zueker, T. F., bone-ash in prevention and healing of experimental rat rickets, A., 1408.

Zuckerkandl, F. See Jonnard, R. Zuckerman, S., embryological interpretation of changes induced by costrogens in the male reproductive tract, A., 389. Influence of estrogens on the prostate gland, A., 1030.

and Parkes, A. S., effect of sex hormones on the prostate of monkeys, A., 527.

Zuckermandel, E. C. See Dow Chem. Co. Zudin, M. D., effect of rapid cooling on distribution of lead in cast zinc, B., 198. Mechanical properties of electrolytic zinc, B., 201.

Zürn, A. See Waters, L.

Zuhr, and Wildner, growth of marrowstem kale in Bohemia, B., 385.

Zuibin, F. E. See Apanaev, O. S. Zuidema, H. H. See Bartell, F. E.

Zuipurdeev, S. D., heat treatment of duralumin wire, B., 413.

Zuithoff, A. J. See Backer, H. J.

Zummo, C., Elia, D., and Pagano, A., action of acetylcholine on gaseous metabolism, A., 239.

Zunino, J., nuclear vibration bands of solid hydrogen bromide and iodide near their transition points, A., 921.

Zunz, E., and Jourdan, F., effect of diethylaminomethylbenzdioxan on diuresis, A., 1292.

and La Barre, J., physiological variations in the internal secretion of the pancreas. XIV. Action of posterior pituitary extract and of its hypertensive and oxytocic fractions on secretion of adrenaline and insulin, A., 643.

Perla, J., and Jourdan, F., 3-diethyl-

aminomethyl- and 3-piperidomethylbenzdioxan do not enhance the hypoglycemic action of insulin in the dog,

A., 1147.

and Vesselovski, O., influence of adrenaline and cortin on oxidised and reduced glutathione in the blood, A., 1563.

Žuravlev, S. See Kubelka, V. Zurbrügg, E., simple methods for identifying aluminium alloys, B., 279.

Zusser, E. E., preparation of chemically pure phosphoric acid, B., 930.

Zuverkalov, D., and Nushdin, P., vitamin content of sauerkraut, B., 904.

Zuverkalov, D. A., and Sarkissov, A. K., nutritive medium for the preparation of tuberculin, A., 1155. Zuydewijn, E. de R. van, and Stuurman,

J., steric hindrance, A., 1358.

See also Böeseken, J.

Zverev, N., non-adhesive lining material for [rubber-] tyre manufacture, B., 31. Zverev, V. S. See Alimarin, I. P.

Zvironas, A., anomalous Zeeman effect of single hyperfine structure components of the mercury resonance line 2537 A. II. The σ components, A., 398. Zeeman effect of the hyperfine structure components of the mercury resonance line 2537 A., A., 654. Zvjagintzev, O. E., and Brunovski, B. K.,

alloys of rhodium with copper, A., 23. Osmiridium. III., A., 49, 1326.

Zvorikin, A. J., dynamics of preparation of red phosphorus. I., A., 946. Preparation of chlorine derivatives of phosphorus from phosphorites, B., 318. Decomposition of sulphates by chlorine, B., 452.

Zvorykin, I. A. See Nevros, K. I. Zvorykina, V. C. See Rodionov, V. M. Zwarenstein, H. Seo Shapiro, B. G.,

and Shapiro, H. A.

Zwecker, O., reactivity of aromatic hydrogen atoms, A., 831. Zwehl, W. von. See Geier, C.

Zweifel, B. See Santi, R. Zwemer, R. L., and Jungeblut, C. W., effect of various cortico-adrenal extracts on diphtheria toxin in vivo and in vitro, A., 900.

and Truszkowski, R., potassium: a basal factor in the syndrome of cortico-adrenal insufficiency, A., 1030.

See also Truszkowski, R. Zwergal, A. Sec Heiduschka, A.

Zwicky, F., red-shift from nebulæ, A., 128. Where can negative protons be found ? A., 1439. Sce also Baade, W.

Zwicky, H., and Almasy, F., pigments of hair, A., 96.

Zwicky, J., freeing liquids from gases, (P.), B., 257.

Zwieg, W., causes of decomposition of leather packing in valves of house [gas-]pressure regulators, B., 580.

and Kossendey, F., control of dry gas purification, B., 915.

Zwikster, G. H., and Boyd, T. E., reversible loss of the all-or-none response in coldblooded hearts treated with excess

potassium, A., 514. Zwilgmeyer, F. See Du Pont de Nemours & Co., E. I.

Zwilgmeyer, Z. Sec Nat. Aniline & Chem. Co.

Zwilliger, L. See Reimann, F. Zysman, A. See Mystkovski, E. M.

Zyw, M. See Danysz, M., and Rotblat, J.